

Expired Medicine Waste Collector Website And Application

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Abstract- *This project aims to develop a user-centric platform, comprising a website and mobile application, dedicated to the responsible disposal of expired medicines. The platform facilitates easy submission and scheduling of medicine disposal requests, leveraging location-based services for efficient collection management. Additionally, it offers educational resources to promote awareness about proper medicine storage and disposal practices. Designed with a focus on user-friendliness, security, and accessibility, the platform aims to bridge the gap between individuals and environmentally sustainable medicine disposal solutions.*

Keywords: *Expired Medicine Disposal, Responsible Disposal, User-Centric Platform, Location-Based Services, Environmental Sustainability.*

I. INTRODUCTION

Unlike the business sector, which seeks to maximize market profits, humanitarian organizations are largely dependent on charitable donations. Public and private donors fund field operations and headquarters operating expenses. Often, these donors contribute to a specific cause, program or area, known as earmarked funding. Once funds are reserved, humanitarian organizations may not use them for reasons other than those specified by the funder. This greatly reduces their flexibility to deal with other pressing issues such as waste management. For example, if a donor allocates their funds to buy medicine for war-affected communities in Ukraine, the receiving humanitarian organization must not use those funds to develop a reverse logistics system for the transport and proper disposal of medical waste. They also cannot allocate funds to other areas where medical supplies may be needed more, such as South Sudan [1]

The medicines to be kept are not very important from the point of view of the real needs of life. Especially in the post-epidemic period, the family doctor's office is often unable to fully cope with unexpected life situations under the conditions of regular epidemic control. The number of drug supplies does not fully correspond to the frequency and amount of use, so a situation occurs where many families want to use certain drugs, but the drugs kept at home are outdated. In addition,

since more than 80% of families do not clean medicine boxes regularly, about 15,000 tons of expired medicines are produced every year in the country [2]

At present, China has not yet developed a mature, scientific and complete recycling system of obsolete drugs, and such a serious waste of drugs is not conducive to ecological and sustainable development. Therefore, solving the problem of out-of-date medicines in domestic stocks is urgent. Current research on backup medicines is based on the American socio-medical situation and is relatively old, with insufficient guidance for the 2020s after the outbreak of the COVID epidemic [3]

International consulting work was medicine wastage very diverse, drug waste as I often summarize from the early decades, helped countries or cities to identify and implement appropriate next steps to develop their own sustainable systems to manage MSW or hazardous waste. The main "tools of the trade" are to identify a country's current starting point and build from there; understands the trips already made in other countries and adapts the lessons learned to the local situation. Looking at modern waste and resource management high income countries, it is important to remember that it took us 50 years to get to where it is today compared to the 1970 baseline. other countries are scattered at various points along the route [4]

I used two complementary sources for the historical view. The first is my own memories and experiences - how I use my career progression as part of the thread to present current history. I use the first person when I want to emphasize my personal point of view in the moment under discussion; otherwise, the third person is used. To confirm my recollections and provide proper documentation, I make extensive use of my personal library, including gray literature reports and conference proceedings at which I have presented; and have also been in contact with past and present colleagues to fill in some of the gaps. Another approach is a more traditional semi-system [5]

II. LITERATURE SURVEY

According to **Patrick Bond**. et al., 2019 The long payback of megaproject investments in long-term fossil fuel-related

projects (and thus their dependence on government subsidies and guarantees) and the financial difficulties of transitioning to low-carbon transport, energy and waste management systems together create a time phantom. contradictions All in all, it seems impossible to reconcile socio-ecological survival needs with the profit-oriented time horizons of investors. It includes a controversial oil pipeline from the continent's largest refinery complex to its biggest market, built at the same time as a pipeline to divert methane from the continent's largest landfill to a new power generator [6]

According to **Maria Sharmina**. et al., 2021 Consumer single-use plastic waste has received a lot of attention from the public, decision-makers and researchers. However, the use of such waste in medical institutions has been less studied. This article reviews the available evidence on waste management strategies in hospitals, with a particular focus on single-use plastics. The paper develops a reference framework for the waste hierarchy and technological readiness level and evaluates each waste management strategy in relation to what indicates the maturity of the technology and the position of the strategy in the waste hierarchy [7]

According to **Dejan Ubavin**. et al., 2022 Managing asbestos spills in developing and transition countries is particularly difficult. There are often gaps in the proper procedures for handling asbestos waste. There are no reliable quality data or databases on the quantities of asbestos production and use, and there are no asbestos surveys or registries of asbestos-related diseases according to the European Union (EU) or other regulations. The purpose of this work is to develop a model to determine and estimate the amount of asbestos in the built environment of a transition country [8]

According to **Treasa De Loughry**. et al., 2022 Looking at the limits of e-waste and Africa's digital future, Treasa De Loughry focuses on the diverse visual responses to e-waste in West Africa, from eco-documentaries and photo reactions to the infamous Agbogblosh e-waste site in Ghana. to technoutopian visions of e-waste and e-waste as signifier and artifact of the neo-colonial nature of capitalist world ecology. The first half of this article focuses on the documentary Welcome to Sodom (2018) by Florian Weigensamer and Christian Krönes and is based on a critique of the transmedia impact of the documentary [9]

According to **David C Wilson**. et al., 2023 Improving waste and resource management (WaRM) worldwide can halve the amount of plastic entering the oceans, significantly reduce global warming and contribute to 12 of the 17 Sustainable Development Goals (SDGs). To achieve such results, it is necessary to understand and learn from the historical development of WaRM. The baseline is 1970 before environmental legislation. In the early stages of the Global North, the focus was on a "technical solution" within a tightly controlled legal framework. First, hazardous waste and

municipal solid waste were controlled, and then environmental standards were gradually raised [10]

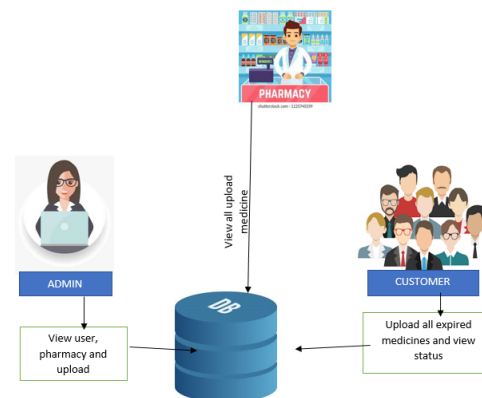
III. PROPOSED SYSTEM

Our proposed system aims to facilitate the responsible disposal of expired medicines through a user-friendly website and mobile application. Users can register, submit details of their expired medicines for collection, and schedule pickups at their convenience. The platform will feature location-based services to identify nearby collection points or arrange home pickups. Additionally, it will provide educational resources on safe medicine storage and disposal practices. An admin dashboard will enable efficient management of collection requests, user accounts, and generate insightful reports. With a focus on security, accessibility, and user engagement, our platform seeks to promote environmental sustainability and raise awareness about the importance of proper medicine disposal.

ADVANTAGES

- More efficient
- No manual work
- High performance
- Clean society with updation

ARCHITECTURE DIAGRAM



Explanation

ADMIN: The admin component of the architecture diagram represents the administrative interface of the system. It consists of a dedicated dashboard accessed by authorized personnel responsible for managing various aspects of the platform. The admin dashboard serves as a centralized control panel for overseeing user accounts, monitoring collection requests, generating reports, and administering the database.

Pharmacy: The pharmacy component represents the interaction point for pharmacies within the system. Pharmacies are integral stakeholders in the medicine disposal process, serving as collection points for expired medicines.

Through the platform, pharmacies can register, manage their profiles, and coordinate with users for the safe disposal of expired medications. They can also access tools for scheduling pickups, updating inventory, and contributing to the dissemination of educational resources related to proper medicine disposal.

Customer: The customer component encompasses the user-facing aspects of the platform, catering to individuals seeking to dispose of expired medicines responsibly. Customers interact with the system through a user-friendly interface accessible via web and mobile applications. They can register accounts, submit disposal requests, schedule pickups, and access information on safe medicine disposal practices. Additionally, customers may receive notifications, track collection statuses, and provide feedback on their disposal experiences.

Database: The database component serves as the foundational infrastructure supporting data storage and retrieval within the system. It comprises a robust and scalable database management system (DBMS) responsible for storing various types of information, including user profiles, collection requests, pharmacy details, and administrative data. The database employs relational or NoSQL data models, depending on the specific requirements of the application, to ensure efficient data management, integrity, and security. Additionally, the database is designed to facilitate seamless integration with other system components, enabling real-time data synchronization and consistent access across different user roles.

IV.RESULT AND DISCUSSION

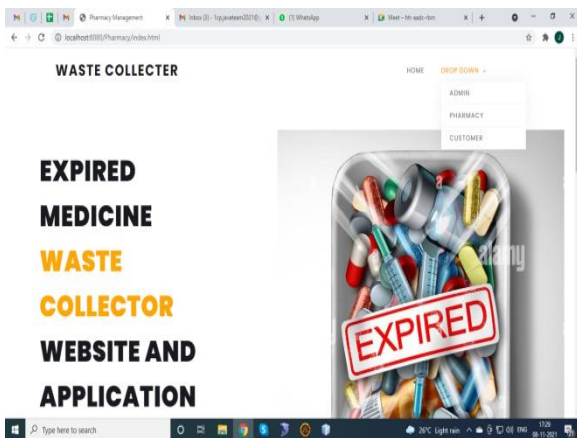


FIGURE.1 HOME PAGE

The home page presents a welcoming interface with a clean layout designed to guide users effectively. Dominating the center of the page is a large banner featuring the initiative's logo and a brief tagline emphasizing the importance of proper disposal of expired medicines. Beneath the banner, users are

greeted with succinct sections directing them to key areas of the website

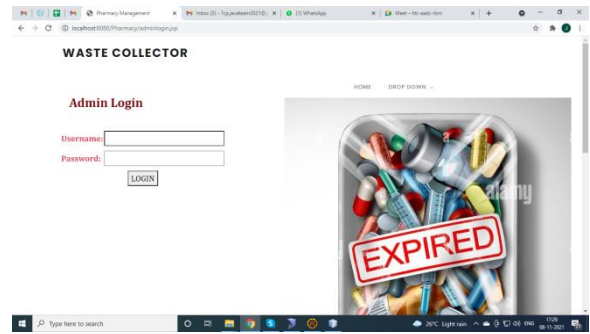


FIGURE.2 ADMIN LOGIN PAGE

The admin login page provides a secure gateway for authorized personnel to access the backend of the website and application. It features a minimalist design with a simple yet intuitive interface. At the center of the page, users are prompted to input their credentials, including username and password, into clearly labeled fields. Below the login form, there is an option for users to reset their password in case they forget it.

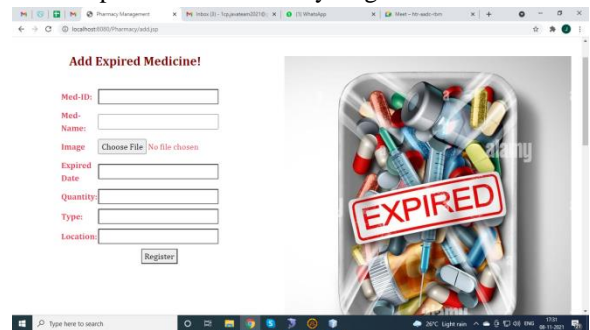


FIG.3ADD EXPIRED MEDICINE

The "Add Expired Medicine" page provides users with a straightforward interface to input details of expired medicines they wish to dispose of. The page features a form with fields for users to enter relevant information such as medicine name, expiration date, quantity, and any additional notes.

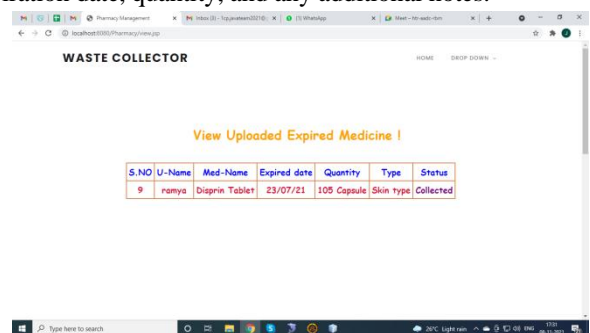


FIG.4 VIEW EXPIRED MEDICINE

The "View Expired Medicine" page enables users to track and manage the expired medicines they have submitted for disposal. The page displays a comprehensive list of all expired medicines

associated with the user's account. Each entry includes details such as medicine name, expiration date, quantity, and status (e.g., pending pickup, disposed). Users can easily search, filter, or sort the list to locate specific entries. Additionally, the page may feature interactive elements such as checkboxes or buttons to perform actions such as editing or deleting entries.

V.CONCLUSION

In conclusion, the development of an expired medicine waste collector platform represents a significant step towards promoting environmental sustainability and responsible medicine disposal practices. By offering a seamless and user-friendly experience, the platform encourages individuals to actively participate in safeguarding the environment while ensuring the safe and proper disposal of expired medicines. With its focus on education, accessibility, and community engagement, the platform serves as a valuable resource for raising awareness and fostering a culture of responsible medicine disposal, ultimately contributing to a healthier and cleaner planet for future generations.

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