

RemoveMyWaste: An application for household hazardous waste removal in the United States

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Abstract—Improper household hazardous waste removal can cause environmental pollution and physical injuries, having a negative impact on human health. The RemoveMyWaste app provides a solution to this issue by providing consumers with easier access to proper waste removal information and connecting them to local waste collection authorities if necessary for their waste to be safely removed.

Index Terms—Waste, Hazardous waste, Waste management, Health, Mobile Applications

1 INTRODUCTION

IMPROPER hazardous household waste removal can contribute to environmental pollution and has the potential to cause injuries to humans and wildlife.

The RemoveMyWaste application proposes a solution that will promote better waste removal practices by making it faster and easier to find information on how to properly remove their waste and the hazards of various household substances. This will streamline the process of household waste removal for people by giving them access to a large database where they can search for hazardous substances and see how to properly dispose of these wastes.

When a user searches a hazardous substance in this database, they will find information on the health risks of improper disposal of this substance and how to properly dispose of it. If proper removal of the substance requires a trip to the user's local waste collection center, the application will alert the user and show the closest hazardous waste collection authorities.

For a user who wants to protect their family and the environment, this application can make the process easier by only requiring one search to find all of the information on how to dispose of their hazardous waste and the risks of improper disposal.

2 PROBLEM

2.1 Users

The users of this application would be people who have hazardous household waste that they need to dispose of safely without harming themselves or the environment.

Current methods on determining how to safely remove hazardous household waste are inefficient as information is spread across different websites and proper waste removal differs by user location. If users can access proper waste removal information for their location and what

they are attempting to dispose of with a single search, it could increase the number of users who opt to properly dispose of their hazardous waste instead of disposing of it down a drain or on the ground.

2.2 Evidence

I have first hand experienced the issue of how to properly remove hazardous household waste and saw how information on how to remove these substances safely can take a while to find online. Improper disposal of household hazardous waste such as pouring them down the drain or disposing of them with the regular trash can cause environmental pollution or have a negative impact on human health [1].

The question of how to dispose of hazardous household waste is a common problem with no consistent answer between different locations.

Hazardous household waste does not have a consistent definition across different states [3]. This can be confusing for someone who is trying to properly dispose of their waste and may come across conflicting information online. Research shows that the most active hazardous household waste collection services throughout the U.S. are only servicing five to ten percent of their local population despite Americans generating 1.6 million tons of household hazardous waste per year [3, 2].

2.3 Real Life Story

When someone encounters the problem of how to properly dispose of their waste in real life, it can cause confusion on how to proceed if they have a hazardous household chemical or object that they are trying to get rid of. They then have to spend a lot of time searching the internet for how to properly dispose of this waste. Recently, I had the need to dispose of a hazardous household chemical and it was a frustrating process. I first had to search for the name of the chemical to see information on how it can be properly disposed. When I discovered that I needed to take it to some kind of waste collection center, I then needed to do additional web searches in order to find a collection center that

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was both close to me and open at the time. Some hazardous waste collection centers are only open at certain times of the year, so this can easily become confusing for someone who is trying to properly dispose of their hazardous household waste in the most efficient manner.

3 SOLUTION

The RemoveMyWaste application is the proposed solution to the issue of how to encourage proper removal of hazardous household waste and make the process more efficient for the user to avoid the unwanted environmental impact and health effects that can result from improper disposal.

When a person has an object or substance that is hazardous and needs to be disposed of, they can make use of the RemoveMyWaste application to find out how to safely dispose of their hazardous waste.

With one search in the application, the user can find information on how to properly dispose of their hazardous substance, health risks for that particular substance, and information on their local hazardous waste collection facilities including contact information and hours of operation if their substance requires a collection facility to be properly disposed of by the regulations of their area. The user can also set reminders for themselves with the application so that they remember to take their waste to collection facility while it is open.

Because the proposed application only requires a single user search, the user can find proper hazardous waste disposal information more efficiently than current methods.

4 METRICS FOR SUCCESS

If this application is implemented and works as intended, it would change the world by reducing environmental impact from hazardous waste in the United States and also protecting the user and their family from injuries that can result from improperly disposed of household hazardous waste.

This application also has the potential to increase the use of local hazardous household waste collection facilities by making it a streamlined process for the user to find their local facilities and hours of operation if it is necessary in proper disposal of their hazardous waste.

5 CONCLUSION

The proposed application has the potential to make it easier for people to protect themselves and the environment by having fast access to information on how to dispose of their hazardous household waste. Since there is no consistent definition of this waste across different states and each state differs on their regulations, having a single application where users can search for the substance they are trying to dispose is key to making this process more efficient for the end user.

Instead of searching on several websites about how their hazardous household waste can be properly disposed of, users can find all of the necessary information about their waste and how to dispose of it in their particular

location with this application.

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