

Carpool Application for Elderly and Disabled People

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Abstract: *The main specific objective of this paper is to develop a simple application to help the elderly and disabled people to help the problem of conveyance from one place to another. With increasing convergence between different technologies like the cellular world, internet world, different applications have become popular and many more are under development. But these emerging technologies are still far away from reach of elderly and disabled people. So, we aim to develop a simple application based on the "Location Based Services" for elderly and disabled people.*

Keywords: Non-Conveyance, disabled, Census

1. Introduction

According to statistics provided by census 2001, there were nearly 104 million elderly or senior citizens in India and nearly 30 million people were disabled. This research proposes to design a simple application to help the elderly and disabled people that helped in conveyance from one place to another without any difficulties as they face in daily life in moving from one place to another. Current conveyance applications like Ola and Uber neglect the problems faced by elderly and disabled citizens and do not offer any special service to help their difficulties.

2. Materials and Methods

The main objective of this research paper is to help elderly and disabled people in conveyance from one place to another without facing any difficulties that they face in daily life. In current scenario, elderly and disabled are totally neglected when it moves to moving them from one place to another, people tend to run away when they are given the responsibility of taking their old/disabled people as they consider it as a burden and send them to old age homes. This simple application helps them to move independently without any constraints as the simple application is simple, is available in multiple languages and the can cab can be called through a phone call as well.

In this application, the cab driver comes along with a personal helper that will assist the elderly and disabled citizen to reach to the cab without any difficulty and this personal helper will also assist the citizen so that he/she can reach the exact destination point without any facing difficulties like traffic jam, climbing stairs. This service will be offered at a very low cost as it is a social service. The application will earn by getting sponsorships, advertisements. Since, the destination route will contain many restaurants in between, we can set a tie up that will offer their products at a very low cost as the application will be mainly used by senior citizens and disabled citizens so special offered will be introduced to attract the people towards using the application that aims to make their life easier in a very cheap and smart way. The application will be

available as a website, as a mobile application on app stores and will also be available offline to work on call via mobile phones. To check, whether the application is used by the correct age group, the app will create that asks for their age with a proper age proof and proof of disability if there is any.

3. Survey

In 2016/17 in England, the percentage of patients with an emergency case of non-conveyance by ambulances was 42%.

The percentage of patients with an emergency case of non-conveyance by ambulances was 42% in Finland in 2016.

Japan invented a bed that easily converts into wheelchair as most of its population is over 65 years of age. Thus, making conveyance easy.

A 24 hour system has been developed that has an emergency button with it that patches through a Nurse Triage Call Center which helps the senior citizens when contacted.

4. Tables

Figure 1.2: Decadal growth in elderly population vis-à-vis that of total population

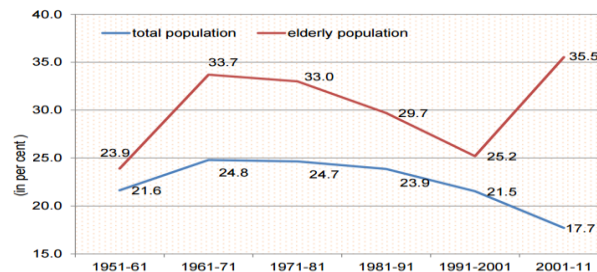


Table 1: Percentage share of elderly population (60 years and above) in total population by sex in India

Years	Male	Female
1961	5.5	5.8
1971	5.9	6.0
1981	6.4	6.6
1991	6.7	6.8
2001	7.1	7.8

Volume 8 Issue 4, April 2019

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2004-05	6.9	7.7
2007-08	7.3	7.5
2011	7.7	8.4

Table 2: Disabled population by age group in India-Census, 2011

Age Group	Population (In Lakhs)
0-4 yrs	12.9
5-9 yrs	19.6
10-19 yrs	46.2
20-29 yrs	41.9
30-39 yrs	36.4
40-49 yrs	31.2
50-59 yrs	24.9
60-69 yrs	26.6
70-79 yrs	17.7
80-89 yrs	7.2
90+ and above	3.6

5. Results

All the studies and tables which are studied show clearly that there is clear need of an application that helps in conveyance of elderly and disabled people as there population can't be neglected and current present young age should be aware that they are also going to be old and they could also face same difficulties as well.

6. Future Scope

The application can be further developed by including conveyance of injured persons for all age groups as well just like the ambulance system. People having plasters on legs sustain for about a month. Till then, they can't walk properly and find huge difficulties when they have to move from one place to another. This application will solve their problem by carrying them to the destination by using the system of a common ambulance. But there will be difference as it will cover all the places not just hospitals and the location of the place where the accident had occurred.

7. Conclusion

This application works as a link between the conveying medium and the senior citizen. The research mainly focuses on developing a website or a mobile application that will help the disabled in moving from one place to another. The mobile application will use a navigation system to detect the location of the senior citizen and then assign the cab driver and helper according to the distance of the destination from the source and the location of nearest cab.

8. Acknowledgement

We thank Vellore Institute of Technology (VIT) who provided us the insight and expertise that greatly assisted the research.

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