

## E-Buddy for Child Labour

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**Abstract:** In view of the concern, we are putting out a considerate but technological strategy that might ultimately entirely resolve the problem. The purpose of this essay is to further the idea of a child labor identification tool. Stop such illegal activities in the fields of brick making, coal mining, mining for cosmetics, etc. in South Asian countries such as Bangladesh, India, Pakistan, and Nepal. Due to the lack of an open-sourced child laborers dataset in the context of the specified place, a beautiful dataset of this kind has been created in this project. A Convolutional Neural Network (CNN)-based model for recognizing child labor has been created using the dataset. Additionally, the accuracy of the results has been compared using two well-known transfer learning approaches.

**Key Word:** childlabour, convolutional neural network, child labour dataset, transfer learning.

### I. INTRODUCTION

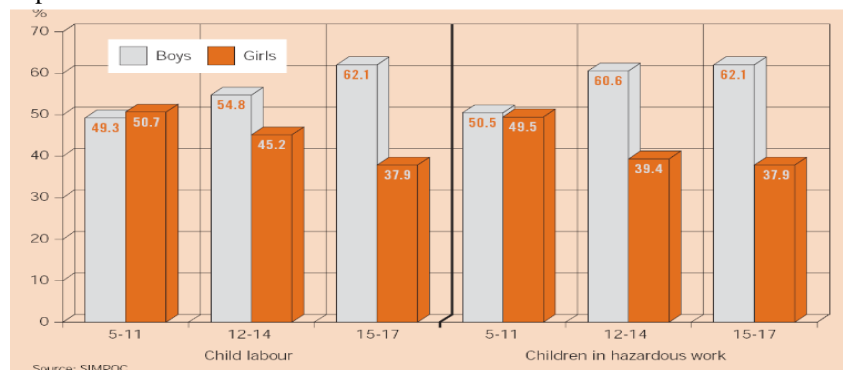
Child labour has been a social issue for a very long time that has persisted in every country in the world. Even as the world continues to expand economically and technologically to its pinnacle, the horrors of denying children's basic rights continue to be a major issue. One in ten children globally, according to a Global Estimate [1] conducted by the International Labor Organization (ILO) in 2018, are involved in child labour in some capacity. Child labour has been a social issue that has persisted over the years in every region of the world. The horrors of denying children their most basic rights persist even as the world continues to advance and reaches the pinnacle of economic growth and technical advancement. One in ten children worldwide are either directly or indirectly involved in the act of child labour, according to a Global Estimate [1] conducted by the International Labor Organization (ILO) in 2018.

### II. MOTIVATION

Using this smartphone software, managers and inspectors of businesses may create interactive checklists to help them secure a workplace free of child labour. By explicitly taking into consideration how choices regarding children's job and school attendance are interconnected. Child Labor - Learn how to better protect children's rights as millions of youngsters under the age of 18 work as child labourers. The Integrated Project For Elimination of Child and Bonded Labour developed a mobile app for finding workplaces and child labour.

### III. LITERATURE REVIEW

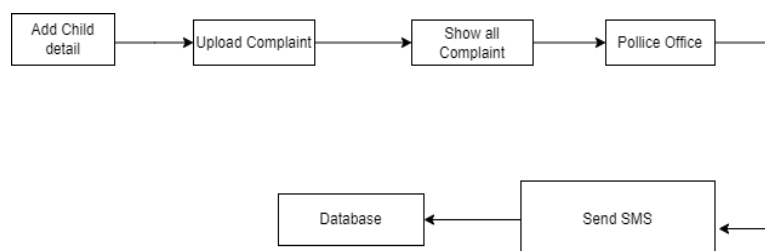
Child labour activity is on the rise in developing nations like India. People are unaware of the serious problem that is affecting their community, and they are also unaware of the appropriate course of action. With the use of the online complaint-registration tool E buddy, more people will be motivated to stop this illegal behavior. This is also a quick and time-efficient course of action. This application will contribute to a reduction in the amount of child labour in our nation. All the youngsters who are imprisoned in the prison of child labour will receive assistance from this.



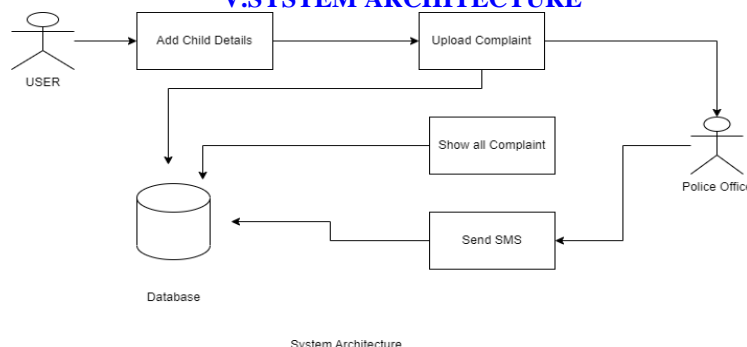
In this figure shows that child labor and children in hazardous work as a proportion of economically active children increases with age for boys but declines for girls. In 2004, 49.3 percent of economically active boys in age group 5-11 were classified as child labor, while the corresponding figure for age-group 15-17 was 62.1 percent. On the other hand, 50.7 percent and 39.9 percent of economically active girls were classified as child labor in age groups 5-11 and 15-17 respectively.

#### IV. PROPOSED METHODOLOGY

The data for this study have been trained and tested using two alternative ways. We first developed our Own Convolutional Neural Network model for our specific dataset. In order to train and evaluate the data and compare the findings with the performance of our own model, we later used the transfer learning technique, adopting the VGG16 and Exception models. Data pre-treatment has also been briefly described here because it will help in understanding the models, even though the paper focuses on the models development and the results they produce.



#### V. SYSTEM ARCHITECTURE



#### VI. APPLICATION

The term "child labour" refers to the exploitation of children through any type of job that robs them of their youth, keeps them out of regular education, and is detrimental to their moral, social, intellectual, and physical growth.

#### VII. ADVANTAGES

1. User can register complaint as soon as they see the child labour.
2. It will reduce the child labor.
3. Time saving.

#### VIII. CONCLUSION

Many nations have made tremendous efforts in recent years to end the horrifying practice of child labor, but despite the implementation of laws and the creation of regulations, the issue still exists in relation to the poverty line in South Asian nations. However, due to the implementation of macroeconomic and structural reform policies that strain the export system, child labor has recently become more visible and divisive. Additionally, it has been anticipated that the COVID-19 virus's effects will make the situation even worse. We put out a technical solution to the issue after taking into account all the negative impacts that child labor has on both the lives of those youngsters and the socioeconomic development of a nation.

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