Live On-Screen Japanese Translation with Optical Character Recognition Mobile Application

UNDERGRADUATE THESIS

Submitted as one of the requirements to obtain

Sarjana Komputer

By:

Fauzan Lucky Alana Iskandar

001201900048

FACULTY OF COMPUTING

INFORMATICS STUDY PROGRAM

CIKARANG

FEBRUARY, 2023

Live On-Screen Japanese Translation with Optical Character Recognition Mobile Application

By

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Approved:

Cutifa Safitri, Ph.D.
Final Project Advisor

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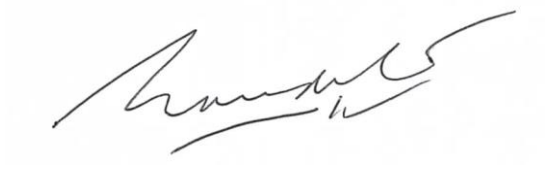

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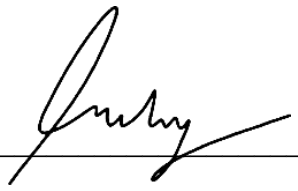

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Cutifa Safitri, Ph.D.

ABSTRACT

Languages are a tool of communication used by humans. Languages are used by human as a main form of communication within a community. By learning a language, being able to communicate with others who speaks that language might prove to be beneficial, be it in a business, technological, or even in a cultural context. Being able to speak a foreign language also allows one to connect with the native speakers of said language, which possibly unlock a whole new side of the world.

There are a significant number of languages used throughout different places and times, with it comes its own writing system. Some uses the widely known Latin alphabets, such as English and Bahasa Indonesia; and some uses logographic characters, such as Japanese and Chinese.

Learning a new language can be especially difficult when said language's writing system uses a logogram, where a written character represents a word. When a learner encounters an unfamiliar logogram, it can be quite exhaustive for the learner to look up the definition of the logogram. To mitigate this predicament, a mobile application is proposed to speed up the rate of looking up logogram definitions. The application was made with Japanese as the target language.

DEDICATION

I would like to dedicate my final project to my ever-supportive family and friends who has supported me in every decision I made and whose support has helped me, whether it be directly or indirectly, in the process of completing this final project.

ACKNOWLEDGEMENTS

I would like to express my gratitude to my advisor, Ms. Cutifa Safitri, Ph.D., who has patiently guided me and helped me during the progress of this final project. Without her guidance and help this final project would not have been possible.

I would like thank my lecturers, whose names I am unable to mention one by one, has given me the foundation of knowledge and wisdom required for me to do this final project. The lectures I have received are fundamental for the completion of this final project and has directed me into the correct path.

In addition, I would like to thank my family for enabling my studies and supported me throughout my history of education. To my mother, who has raised me into the person that I am now and who has supported me in many ways than one. To my late father, whose advises and wisdom I still hold close to this very moment. And to my siblings, whose existence I cherish.

Lastly, I would like to thank my friends who has helped and supported me morally and academically. Their blinding support and belief in me have maintained my spirits and motivation in check.

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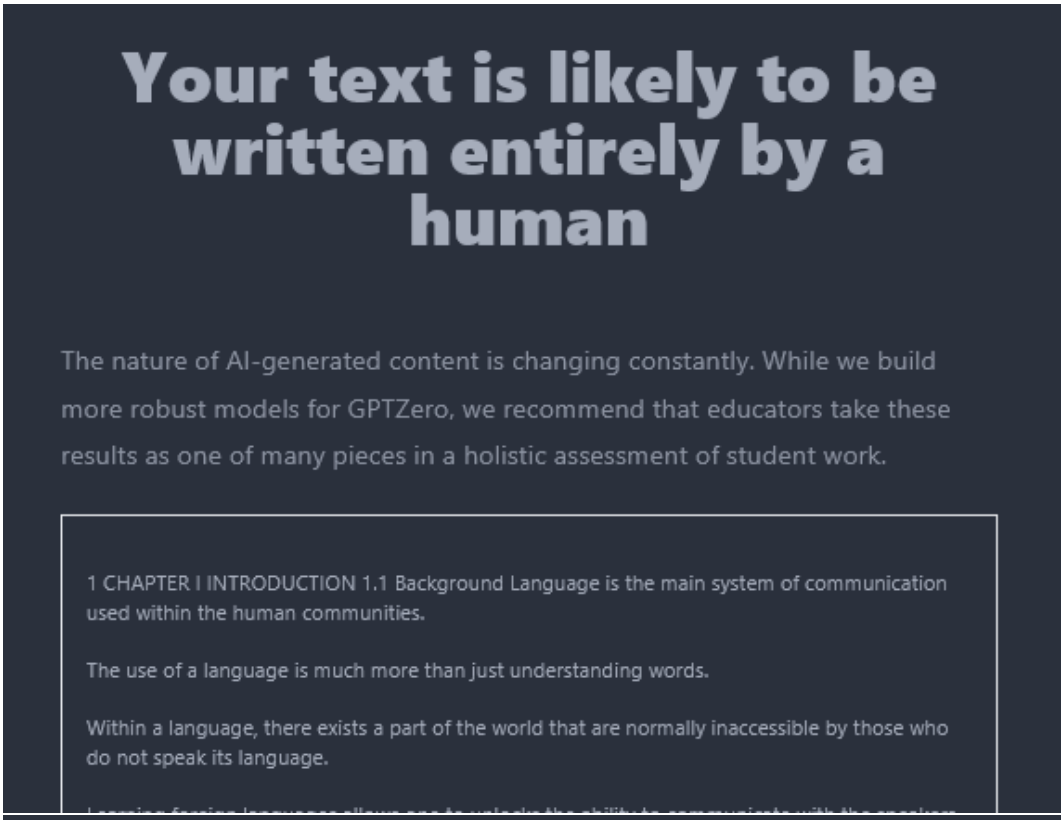

CHAPTER V – CHAPTER VII GPTZERO RESULTS