Same Language Translator
— Reformulating Complex Expressions into Plain Words —

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In recent years, the population of foreign nationals in Japan has rapidly increased. According to the Organisation for Economic Co-operation and Development (OECD), each year approximately 100,000 foreign-born individuals have become resident in Japan on a long-term or permanent basis in recent years. As of 2019, there were 2.93 million foreign nationals living in Japan, according to the National Statistics Center. Given Japan's labor shortages brought about by an aging population, the number of foreign-born nationals in Japan is expected to continue to increase.

Often, the Japanese language proficiency of foreign nationals is insufficient to understand text or instructions intended for native speakers. While translation tools between languages can offer a partial solution, given the sheer number of target languages good coverage is not always ensured. Plain Japanese has been developed as a simplified subset of Japanese in an effort to make it more intelligible to Japanese learners, bypassing coverage issues.

In this thesis, we first explore the benefits and limitations of plain Japanese with a survey of Japanese learners. Then, we describe a methodology to automatically transform regular Japanese text into plain Japanese by reformulating complex expressions into plain words. Finally, we implement Same Language Translator (SLT) - a prototype of this methodology - and provide an evaluation including both success and failure cases of our prototype.

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