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Word segmentation of output response for sign language devices (Article)

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Abstract

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Segmentation is an important aspect of translating finger spelling of sign language into Latin alphabets. Although the sign language devices that are currently available can translate the finger spelling into alphabets, there is a limitation where the output is stored in a long continuous string without spaces between words. The system proposed in this work is meant to be used together with a text-generating glove device. The system used text input string and the string is then fed into the system, one character at a time, and then it is segmented into words that is semantically correct. The proposed text segmentation method in this work is by using the dynamic programming and back-off algorithm, together with the probability score using word matching with an English language text corpus. Based on the results, the system is able to properly segment words with acceptable accuracy. © 2020, International Islamic University Malaysia-IIUM.

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