CLAIMS

1. A method of machine translation comprising:

determining a to-be-translated original text;

acquiring a last sentence of original text of the to-be-translated original text and a next sentence of original text of the to-be-translated original text, and acquiring a last sentence of translated text obtained by translating the last sentence of original text based on a target language; inputting the to-be-translated original text, the last sentence of original text, the next sentence of original text and the last sentence of translated text into an encoder to be encoded, to obtain a corresponding encoding result;

inputting the encoding result into a decoder to be decoded, to obtain a corresponding decoding result; and

based on the decoding result, acquiring a target translated text of the to-be-translated original text with respect to the target language;

wherein the step of inputting the to-be-translated original text, the last sentence of original text, the next sentence of original text and the last sentence of translated text into the encoder to be encoded, to obtain the corresponding encoding result comprises:

for each of to-be-translated processed units in the to-be-translated original text, by referring to the to-be-translated original text, the last sentence of original text, the next sentence of original text and the last sentence of translated text, encoding the to-be-translated processed unit, to generate a processed-unit semantic-feature encoded text corresponding to the to-be-translated processed unit; and

stitching the processed-unit semantic-feature encoded texts, to obtain a semantic-feature encoded vector of the to-be-translated original text, to be used as the encoding result of the encoder.

2. The method according to claim 1, wherein the step of, for each of the to-be-translated processed units in the to-be-translated original text, by referring to the to-be-translated original text, the last sentence of original text, the next sentence of original text and the last sentence of translated text, encoding the to-be-translated processed unit, to generate the processed-unit semantic-feature encoded text corresponding to the to-be-translated processed unit comprises:

encoding each of the to-be-translated processed units in the to-be-translated original text, to obtain to-be-translated-processed-unit encoded texts corresponding to the to-be-translated processed units, and stitching the to-be-translated-processed-unit encoded texts, to obtain a to-be- translated-original-text encoded text corresponding to the to-be-translated original text;

encoding the last sentence of original text, to obtain a last-sentence-of-original-text encoded text of the last sentence of original text;

encoding the next sentence of original text, to obtain a next-sentence-of-original-text encoded text corresponding to the next sentence of original text;

encoding the last sentence of translated text, to obtain a last-sentence-of-translated-text encoded text corresponding to the last sentence of translated text; and

for each of the to-be-translated-processed-unit encoded texts, based on the to-be-translated-processed-unit encoded text, the to-be-translated-original-text encoded text, the last-sentence-of-original-text encoded text, the next-sentence-of-original-text encoded text and the last-sentence- of-translated-text encoded text, generating a processed-unit semantic-feature encoded vector corresponding to the to-be-translated-processed-unit encoded text, to be used as the processed-unit semantic-feature encoded text of the corresponding to-be-translated processed unit.

3. The method according to claim 2, wherein the step of inputting the encoding result into the decoder to be decoded, to obtain the corresponding decoding result comprises:

extracting the to-be-translated-original-text encoded text from the semantic-feature encoded vector;

for each of the to-be-translated-processed-unit encoded texts in the to-be-translated-original- text encoded text, by referring to the last-sentence-of-original-text encoded text, the next-sentence- of-original-text encoded text, the last-sentence-of-translated-text encoded text, and a to-be- translated-processed-unit encoded text preceding the to-be-translated-processed-unit encoded text in the to-be-translated-original-text encoded text, translating the to-be-translated-processed-unit encoded text, to generate a translated processed-unit text of the to-be-translated-processed-unit encoded text; and

stitching the translated processed-unit texts, to obtain a candidate translated text of the to-be-translated original text, to be used as the decoding result of the decoder.

4. The method according to claim 1, wherein the encoding result contains the to-be-translated-original-text encoded text obtained after the encoding processing, the decoding result contains a plurality of instances of the candidate translated text obtained after the decoding processing, and the step of, based on the decoding result, acquiring the target translated text of the to-be-translated original text with respect to the target language comprises:

based on a cosine similarity algorithm, calculating text similarities between the to-be- translated-original-text encoded text and the candidate translated texts, to obtain a plurality of text similarities; and

based on the plurality of text similarities, selecting the target translated text of the to-be-translated original text from the plurality of candidate translated texts.

5. The method according to claim 4, wherein the step of, based on the plurality of text similarities, selecting the target translated text of the to-be-translated original text from the plurality of candidate translated texts comprises:

if a terminology text exists in the to-be-translated original text, determining whether a corresponding translated terminology text exists among the plurality of candidate translated texts, and based on whether the corresponding translated terminology text exists, performing score assigning to the plurality of candidate translated texts, to obtain a plurality of first score values;

based on the plurality of text similarities, performing score assigning to the plurality of candidate translated texts, to obtain a plurality of second score values;

for each of the candidate translated texts, calculating a sum of the first score value and the second score value corresponding to the candidate translated text, to obtain a total score value of the candidate translated text; and

comparing the total score values of the candidate translated texts, and based on a comparison result, selecting from the plurality of candidate translated texts the candidate translated text having a highest total score value, to be used as the target translated text.

6. The method according to claim 1, wherein,

the to-be-translated original text is a subtitle text with a current time stamp;

the last sentence of original text of the to-be-translated original text is a subtitle text with a last time stamp;

the next sentence of original text of the to-be-translated original text is a subtitle text with a next time stamp; and

the last sentence of translated text is a translated subtitle text with the last time stamp that is obtained by translating the subtitle text with the last time stamp.

7. The method according to claim 1, wherein the encoder and the decoder are comprised by

a pre-trained translation model, wherein the translation model is obtained by:

acquiring training samples, wherein the training samples include a to-be-translated-original- text sample, a last-sentence-of-original-text sample of the to-be-translated-original-text sample, a next-sentence-of-original-text sample of the to-be-translated-original-text sample, a last-sentence- of-artificially-translated-text sample of the last-sentence-of-original-text sample and a target-artificially-translated-text sample of the to-be-translated-original-text sample; the last-sentence- of-artificially-translated-text sample is obtained by artificially translating the last-sentence-of- original-text sample based on the target language; and the target-artificially-translated-text sample is obtained by artificially translating the to-be-translated-original-text sample based on the target language;

inputting the to-be-translated-original-text sample, the last-sentence-of-original-text sample, the next-sentence-of-original-text sample and the last-sentence-of-artificially-translated-text sample into the encoder to be encoded, to obtain a corresponding encoding training result;

inputting the encoding training result into the decoder to be decoded, to obtain a corresponding decoding-result sample;

based on the decoding-result sample, determining a target-translated-text sample of the to- be-translated-original-text sample with respect to the target language;

calculating a loss value of the target-translated-text sample as compared with the target-artificially-translated-text sample; and

based on the loss value, adjusting parameters of the translation model, continuing to train the translation model, and when a training stopping condition is reached, stopping the training, to obtain the translation model.

8. An electronic device, wherein the electronic device comprises a processor, a memory and a computer program that is stored in the memory and is executable in the processor, and the computer program, when executed by the processor, implements the method of machine translation according to any one of claims 1-7.

9. A computer-readable storage medium, wherein the computer-readable storage medium stores a computer program, and the computer program, when executed by a processor, implements the method of machine translation according to any one of claims 1-7.