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(54) Title: SYSTEMS AND METHODS FOR TRANSLATING NATURAL LANGUAGE SENTENCES INTO DATABASE QUERIES

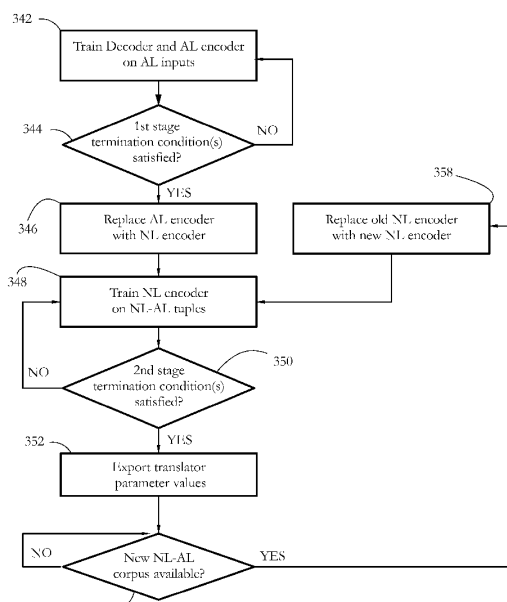


FIG. 12

(57) Abstract: Described systems and methods allow an automatic translation from a natural language (e.g., English) into an artificial language such as a structured query language (SQL). In some embodiments, a translator module includes an encoder component and a decoder component, both components comprising recurrent neural networks. Training the translator module comprises two stages. A first stage trains the translator module to produce artificial language (AL) output when presented with an AL input. For instance, the translator is first trained to reproduce an AL input. A second stage of training comprises training the translator to produce AL output when presented with a natural language (NL) input.