

What is claimed is: CLAIMS

1. A question-answer interaction method, comprising:

receiving a question of a user;

5 acquiring an answer corresponding to the question, and acquiring at least one recommendation relevancy between at least one intention in a preset intention library and the question;

determining a recommendation intention according to the at least one recommendation relevancy; and

10 sending the answer to the user, and pushing the recommendation intention to the user;

wherein the acquiring at least one recommendation relevancy between at least one intention in a preset intention library and the question comprises:

performing a word segmentation processing on the question to obtain a plurality of words;

15 matching each of the plurality of words with the at least one important element in a topic model corresponding to each of the at least one intention in the preset intention library, the topic model comprising at least one probability of the at least one important element; and

20 determining, according to a probability of an important element that matches the plurality of words in the at least one important element, the at least one recommendation relevancy between the at least one intention in the preset intention library and the question, or

the acquiring at least one recommendation relevancy between at least one intention in a preset intention library and the question comprises:

25 performing a word segmentation processing on the question to obtain a plurality of words;

30 matching each of the plurality of words with at least one frequent item in a frequent item set in a sequence pattern corresponding to each of the at least one intention in the preset intention library, the frequent item set comprising a confidence of the at least one frequent item; and

determining, according to the confidence of a frequent item that matches the

plurality of words in the at least one frequent item, the at least one recommendation relevancy between the at least one intention in the preset intention library and the question.

5 2. ~~The question-answer interaction method according to claim 1, wherein the acquiring at least one recommendation relevancy between at least one intention in a preset intention library and the question comprises:~~

~~performing a word segmentation processing on the question to obtain a plurality of words;~~

10 ~~matching each of the plurality of words with at least one important element corresponding to each of the at least one intention in the preset intention library; and~~

~~determining, according to a matching result, the at least one recommendation relevancy between the at least one intention in the preset intention library and the question;—~~

15 ~~wherein the determining a recommendation intention according to the at least one recommendation relevancy comprises:~~

~~determining an intention corresponding to a recommendation relevancy exceeding a preset relevancy threshold in the at least one recommendation relevancy as the recommendation intention.~~

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~~3. The question-answer interaction method according to claim 1, wherein the acquiring at least one recommendation relevancy between at least one intention in a preset intention library and the question comprises:~~

25 ~~performing a word segmentation processing on the question to obtain a plurality of words;~~

~~matching each of the plurality of words with the at least one important element in a topic model corresponding to each of the at least one intention in the preset intention library, the topic model comprising at least one probability of the at least one important element; and~~

30 ~~determining, according to a probability of an important element that matches the plurality of words in the at least one important element, the at least one recommendation relevancy between the at least one intention in the preset intention library and the~~

question.

~~4. The question answer interaction method according to claim 1, wherein the acquiring at least one recommendation relevancy between at least one intention in a preset intention library and the question comprises:~~

~~performing a word segmentation processing on the question to obtain a plurality of words;~~

~~matching each of the plurality of words with at least one frequent item in a frequent item set in a sequence pattern corresponding to each of the at least one intention in the preset intention library, the frequent item set comprising a confidence of the at least one frequent item; and~~

~~determining, according to the confidence of a frequent item that matches the plurality of words in the at least one frequent item, the at least one recommendation relevancy between the at least one intention in the preset intention library and the question.~~

53. The question-answer interaction method according to claim 1, wherein the acquiring an answer corresponding to the question comprises:

performing a word segmentation processing on the question to obtain a plurality of words;

matching each of the plurality of words with at least one important element corresponding to each of the at least one intention in the preset intention library; and

executing, according to a matching result, a corresponding preset branch process to obtain the answer corresponding to the branch process.

64. The question-answer interaction method according to claim 53, wherein the executing a corresponding preset branch process comprises:

determining whether each of the plurality of words matches the at least one important element corresponding to each of the at least one intention in the preset intention library; and

if each of the plurality of words matches the at least one important element corresponding to one of the at least one intention in the preset intention library, outputting

a corresponding answer; or

if each of the plurality of words does not match the at least one important element corresponding to each of the at least one intention in the preset intention library, acquiring at least one important element for triggering the answer by using a context intention reasoning method.

75. The question-answer interaction method according to any one of claims 1 to 64, further comprising:

establishing, according to a plurality of questions raised by each of at least one user recorded in an interaction log, the preset intention library by using a big data analysis method, wherein the preset intention library comprises a corresponding relationship between each of the at least one intention and at least one important element.

86. The question-answer interaction method according to any one of claims 1 to 64, wherein the pushing the recommendation intention to the user comprises:

pushing a question sentence for the recommendation intention to the user; and

the question-answer interaction method further comprises:

sending the answer corresponding to the question sentence for the recommendation intention to the user according to a feedback from the user.

97. The question-answer interaction method according to any one of claims 1 to 64, wherein the pushing the recommendation intention to the user comprises:

pushing a commodity content for the recommendation intention to the user.

108. A question-answer interaction device, comprising:

a receiving module, configured to receive a question of a user;

an acquiring module, configured to acquire an answer corresponding to the question, and acquire at least one recommendation relevancy between at least one intention in a preset intention library and the question;

a determining module, configured to determine a recommendation intention according to the at least one recommendation relevancy; and

a sending module, configured to send the answer to the user, and push the

recommendation intention to the user,

wherein the acquiring module comprises:

a processing unit, configured to perform a word segmentation processing on the question to obtain a plurality of words;

5 a matching unit, configured to match each of the plurality of words with the at least one important element in a topic model corresponding to each of the at least one intention in the preset intention library, the topic model comprising at least one probability of the at least one important element, and

10 a determining unit, configured to determine, according to a probability of an important element that matches the plurality of words in the at least one important element, the at least one recommendation relevancy between the at least one intention in the preset intention library and the question, or

the acquiring module comprises:

15 a processing unit, configured to perform a word segmentation processing on the question to obtain a plurality of words;

a matching unit, configured to match each of the plurality of words with at least one frequent item in a frequent item set in a sequence pattern corresponding to each of the at least one intention in the preset intention library, the frequent item set comprising a confidence of the at least one frequent item, and

20 a determining unit, configured to determine, according to the confidence of a frequent item that matches the plurality of words in the at least one frequent item, the at least one recommendation relevancy between the at least one intention in the preset intention library and the question.

25 ~~419. The question-answer interaction device according to claim 408, wherein the acquiring module comprises:~~

~~a processing unit, configured to perform a word segmentation processing on the question to obtain a plurality of words;~~

30 ~~a matching unit, configured to match each of the plurality of words with at least one important element corresponding to each of the at least one intention in the preset intention library; and~~

~~a determining unit, configured to determine, according to a matching result, the at~~

~~least one recommendation relevancy between the at least one intention in the preset intention library and the question;~~

~~wherein the determining module is configured to determine an intention corresponding to a recommendation relevancy exceeding a preset relevancy threshold in the at least one recommendation relevancy as the recommendation intention.~~

~~12. The question answer interaction device according to claim 10, wherein the acquiring module comprises:~~

~~a processing unit, configured to perform a word segmentation processing on the question to obtain a plurality of words;~~

~~a matching unit, configured to match each of the plurality of words with the at least one important element in a topic model corresponding to each of the at least one intention in the preset intention library, the topic model comprising at least one probability of the at least one important element, and~~

~~a determining unit, configured to determine, according to a probability of an important element that matches the plurality of words in the at least one important element, the at least one recommendation relevancy between the at least one intention in the preset intention library and the question.~~

~~13. The question answer interaction device according to claim 10, wherein the acquiring module comprises:~~

~~a processing unit, configured to perform a word segmentation processing on the question to obtain a plurality of words;~~

~~a matching unit, configured to match each of the plurality of words with at least one frequent item in a frequent item set in a sequence pattern corresponding to each of the at least one intention in the preset intention library, the frequent item set comprising a confidence of the at least one frequent item, and~~

~~a determining unit, configured to determine, according to the confidence of a frequent item that matches the plurality of words in the at least one frequent item, the at least one recommendation relevancy between the at least one intention in the preset intention library and the question.~~

1410. The question-answer interaction device according to claim 108, wherein the acquiring module comprises:

a processing unit, configured to perform a word segmentation processing on the question to obtain a plurality of words;

5 a matching unit, configured to match each of the plurality of words with at least one important element corresponding to each of the at least one intention in the preset intention library; and

an executing unit, configured to execute, according to a matching result, a corresponding preset branch process to obtain the answer corresponding to the branch process.

15 1511. The question-answer interaction device according to claim 1410, wherein the executing unit is configured to determine whether each of the plurality of words matches the at least one important element corresponding to each of the at least one intention in the preset intention library; and

if each of the plurality of words matches the at least one important element corresponding to one of the at least one intention in the preset intention library, output a corresponding answer; or

20 if each of the plurality of words does not match the at least one important element corresponding to each of the at least one intention in the preset intention library, acquire at least one important element for triggering the answer by using a context intention reasoning method.

25 1612. The question-answer interaction device according to any one of claims 108 to 1511, further comprising:

a library establishing module, configured to establish, according to a plurality of questions raised by each of at least one user recorded in an interaction log, the preset intention library by using a big data analysis method, wherein the preset intention library comprises a corresponding relationship between each of the at least one intention and at least one important element.

1713. The question-answer interaction device according to any one of claims 108 to

~~15~~11, wherein the sending module is configured to push a question sentence for the recommendation intention to the user, and send the answer corresponding to the question sentence for the recommendation intention to the user according to a feedback from the user.

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~~18~~14. The question-answer interaction device according to any one of claims ~~10~~8 to ~~15~~11, wherein the sending module is configured to push a commodity content for the recommendation intention to the user.

10 ~~19~~15. A computer device, comprising:
a memory;
a processor; and
an executable instruction stored in the memory and executed in the processor,
wherein when the executable instruction is executed by the processor, the processor
15 performs a question-answer interaction method according to any one of claims 1 to ~~9~~7.

~~20~~16. A computer readable storage medium storing an executable instruction that,
when executed by a processor, causes the processor to perform a question-answer
interaction method according to any one of claims 1 to ~~9~~7.