CLAIMS

1. A method for transferring a robot customer service to a human customer service, comprising:

obtaining conversation characteristics from at least one round of conversations between the robot customer service and a customer;

obtaining state characteristics of the customer;

inputting the conversation characteristics and the state characteristics into a confidence score evaluation model to obtain a current confidence score evaluation value, wherein the confidence score evaluation model is a machine learning model trained by using a conversation sample marked with a robot-to-human intervention point between the robot customer service and the customer and a sample of the state characteristics of the customer,

wherein the confidence score evaluation model is a Wide and Deep model comprising a linear sub-model with the conversation characteristics as an input therefor and a deep neural network sub-model with the state characteristics as an input therefor, and

wherein the state characteristics comprise at least one of the following: action record characteristics, service state characteristics, and identity information characteristics of the customer; and

the deep neural network sub-model uses a first dense neural layer to process the service state characteristics, uses a second dense neural layer to process the identity information characteristics, and uses a long short-term memory (LSTM) neural layer to process the action record characteristics; and

transferring the customer to a human customer service when the current confidence score evaluation value meets a preset robot-to-human intervention condition.

2. The method according to claim 1, wherein the conversation characteristics are natural language processing (NLP) characteristics, comprising one or more of the following: relevance between the customer's question and a robot customer service's answer, a number of rounds of questions and answers, and types of answers.

3. The method according to claim 1, wherein the state characteristics comprise at least one of the following: action record characteristics, service state characteristics, and identity information characteristics of the customer, wherein

the action record characteristics comprise at least one of the following: access records

and operation records of the customer within a preset period of time;

the service state characteristics comprise at least one of the following: a service opening state, an account authentication state, an account login state, and an abnormal account state of a customer account; and

the identity information characteristics comprise at least one of the following: gender, age, and residential area of the customer.

4. The method according to claim 1, wherein the preset robot-to-human intervention condition comprises: the current confidence score evaluation value being greater or less than a preset confidence score threshold.

5. An apparatus for transferring a robot customer service to a human customer service, comprising:

a conversation characteristics obtaining unit, configured to obtain conversation characteristics from at least one round of conversations between a robot customer service and a customer;

a state characteristics obtaining unit, configured to obtain state characteristics of the customer;

a confidence score evaluation unit, configured to input the conversation characteristics and the state characteristics into a confidence score evaluation model to obtain a current confidence score evaluation value, wherein the confidence score evaluation model is a machine learning model trained by using a conversation sample marked with a robot-to-human intervention point between the robot customer service and the customer and a sample of the state characteristics of the customer,

wherein the confidence score evaluation model is a Wide and Deep model comprising a linear sub-model with the conversation characteristics as an input therefor and a deep neural network sub-model with the state characteristics as an input therefor, and

wherein the state characteristics comprise at least one of the following: action record characteristics, service state characteristics, and identity information characteristics of the customer; and

the deep neural network sub-model uses a first dense neural layer to process the service state characteristics, uses a second dense neural layer to process the identity information characteristics, and uses a long short-term memory (LSTM) neural layer

to process the action record characteristics; and

a transfer determination unit, configured to transfer the customer to a human customer service when the current confidence score evaluation value meets a preset robot-to-human intervention condition.

6. The apparatus according to claim 5, wherein the conversation characteristics are natural language processing (NLP) characteristics, comprising one or more of the following: relevance between the customer's question and a robot customer service's answer, a number of rounds of questions and answers, and types of answers.

7. The apparatus according to claim 5, wherein the state characteristics comprise at least one of the following: action record characteristics, service state characteristics, and identity information characteristics of the customer, wherein

the action record characteristics comprise at least one of the following: access records and operation records of the customer within a preset period of time;

the service state characteristics comprise at least one of the following: a service opening state, an account authentication state, an account login state, and an abnormal account state of a customer account; and

the identity information characteristics comprise at least one of the following: gender, age, and residential area of the customer.

8. The apparatus according to claim 5, wherein the preset robot-to-human intervention condition comprises: the current confidence score evaluation value being greater or less than a preset confidence score threshold.

9. A computer device, comprising: a storage device and a processor, wherein the storage device stores thereon a computer program executable by the processor; and the processor implements the steps according to any one of claims 1-4 when executing the computer program.

10. A computer-readable storage medium, having stored thereon a computer program which, when executed by a processor, implements the steps according to any one of claims 1-4.