Claims

1. A method for generating voiceprint information, comprising:

acquiring a plurality of historical voice files generated by a plurality of calls between a first user and one or more second users;

executing filtering processing on the plurality of historical voice files to obtain voice information of the first user, wherein the voice information includes a plurality of pieces of reference voiceprint information of the first user;

executing text recognition processing on the plurality of pieces of reference voiceprint information to obtain text information corresponding to the plurality of pieces of reference voiceprint information; and

storing an identifier of the first user and the plurality of pieces of reference voiceprint information and the corresponding text information;

wherein a randomly selected piece of the reference voiceprint information is sufficient for authenticating the first user.

2. The method according to claim 1, further comprising:

segmenting the text information into a plurality of pieces of sub-text information;

marking a start time and an end time of each piece of the sub-text information; and

acquiring, according to the start time and the end time of the sub-text information, sub-voice information corresponding to each piece of the sub-text information from the voice information.

3. The method according to claim 2, wherein storing the plurality of pieces of reference voiceprint information and the corresponding text information comprises:

storing each pair of sub-voice information and sub-text information as a piece of reference voiceprint information of the first user.

4. The method according to claim 1, wherein storing the reference voiceprint information and the identifier of the first user comprises:

determining whether second reference voiceprint information exists in a voiceprint library, wherein the second reference voiceprint information includes second text information and second identifier, the second text information is the same as the text information in the reference voiceprint information, and the second identifier is the same as the identifier of the first user;

in response to the second reference voiceprint information existing in the voiceprint library, comparing a quality of the voice information in the reference voiceprint information with a quality

of second voice information in the second reference voiceprint information;

in response to the quality of the voice information being lower than the quality of the second voice information, deleting the reference voiceprint information; and

in response to the quality of the voice information is higher than the quality of the second voice information, deleting the second reference voiceprint information.

5. A system for generating voiceprint information, comprising:

a voice filter configured to acquire a plurality of historical voice files generated by a plurality of calls between a first user and one or more second users and execute filtering processing on the plurality of historical voice files to obtain voice information of the first user, wherein the voice information includes a plurality of pieces of reference voiceprint information of the first user;

a text recognizer configured to execute text recognition processing on the plurality of pieces of reference voiceprint information to obtain text information corresponding to the plurality of pieces of reference voiceprint information; and

a voiceprint generator configured to store the plurality of pieces of reference voiceprint information and the corresponding text information;

wherein a randomly selected piece of the reference voiceprint information is sufficient for authenticating the first user.

6. The system according to claim 5, further comprising:

a text segmenter configured to segment the text information into a plurality of pieces of sub-text information, and mark a start time and an end time of each piece of the sub-text information; and

a voiceprint segmenter configured to acquire, according to the start time and the end time of the sub-text information, sub-voice information corresponding to each piece of the sub-text information from the voice information.

7. The system according to claim 6, wherein the voiceprint generator is further configured to store each pair of sub-voice information and sub-text information as a piece of reference voiceprint information of the first user.

8. The system according to claim 5, wherein the voiceprint generator is further configured to:

determine whether second reference voiceprint information exists in a voiceprint library, wherein the second reference voiceprint information includes second text information and second identifier, the second text information is the same as the text information in the reference voiceprint information, and the second identifier is the same as the identifier of the first user;

in response to the second reference voiceprint information existing in the voiceprint library, comparing a quality of the voice information in the reference voiceprint information with a quality of second voice information in the second reference voiceprint information;

in response to the quality of the voice information being lower than the quality of the second voice information, delete the reference voiceprint information; and

in response to the quality of the voice information being higher than the quality of the second voice information, delete the second reference voiceprint information.

9. An identity authentication method, comprising:

acquiring a plurality of historical voice files generated by a call between a first user and one or more second users;

filtering processing on the plurality of historical voice files to obtain voice information of the first user wherein the voice information includes a plurality of pieces of reference voiceprint information of the first user;

text recognition processing on the plurality of pieces of reference voiceprint information of the first user to obtain text information corresponding to the plurality of pieces of reference voiceprint information of the first user;

storing an identifier of the first user and the plurality of pieces of reference voiceprint information and the corresponding text information;

acquiring one of the plurality of pieces of reference voiceprint information corresponding to an identifier of a user to be authenticated;

outputting text information in the acquired reference voiceprint information, and receiving voice information to be authenticated;

comparing voice information in the acquired reference voiceprint information with the voice information to be authenticated;

in response to the voice information in the acquired reference voiceprint information matching with the voice information to be authenticated, determining that the authentication of the user succeeds; and

in response to the voice information in the acquired reference voiceprint information not matching with the voice information to be authenticated, determining that the authentication of the user fails;

wherein a randomly selected piece of the reference voiceprint information is sufficient for authenticating the first user.

10. The identity authentication method according to claim 9, further comprising: segmenting the text information into a plurality of pieces of sub-text information; marking a start time and an

end time of each piece of the sub-text information; and acquiring, according to the start time and the end time of the sub-text information, sub-voice information corresponding to each piece of the sub-text information from the voice information.

11. The identity authentication method according to claim 10, wherein storing the plurality of pieces of reference voiceprint information and the corresponding text information comprises:

storing each pair of sub-voice information and sub-text information as a piece of reference voiceprint information of the first user.

12. The identity authentication method according to claim 9, wherein storing the reference voiceprint information and the identifier of the first user comprises:

determining whether second reference voiceprint information exists in a voiceprint library, wherein the second reference voiceprint information includes second text information and second identifier, the second text information is the same as the text information in the reference voiceprint information, and the second identifier is the same as the identifier of the first user;

if the second reference voiceprint information exists in the voiceprint library, comparing a quality of the voice information in the reference voiceprint information with a quality of second voice information in the second reference voiceprint information;

if the quality of the voice information is lower than the quality of the second voice information, deleting the reference voiceprint information; and

if the quality of the voice information is higher than the quality of the second voice information, deleting the second reference voiceprint information.

13. An identity authentication system, comprising:

a voice filter configured to acquire a plurality of historical voice files generated by a plurality of calls between a first user and one or more second users, and execute filtering processing on the plurality of historical voice files to obtain voice information of the first user, wherein the voice information includes a plurality of pieces of reference voiceprint information of the first user;

a text recognizer configured to execute text recognition processing on the plurality of pieces of reference voiceprint information to obtain text information corresponding to the plurality of pieces of reference voiceprint information;

a voiceprint generator configured to store the plurality of pieces of reference voiceprint information and the corresponding text information, and store an identifier of the first user;

a voiceprint extractor configured to acquire one of the plurality of pieces of reference voiceprint information corresponding to an identifier of a user to be authenticated;

a user interface configured to output text information in the acquired reference voiceprint

information, and receive voice information to be authenticated; and

a voiceprint matcher configured to compare voice information in the acquired reference voiceprint information with the voice information to be authenticated, the voiceprint matcher further configured to determine that the authentication of the user succeeds if the voice information in the acquired reference voiceprint information matches with the voice information to be authenticated, and determine that the authentication of the user fails if the voice information in the acquired reference voiceprint information does not match with the voice information to be authenticated;

wherein a randomly selected piece of the reference voiceprint information is sufficient for authenticating the first user.

14. The identity authentication system according to claim 13, further comprising:

a text segmenter configured to segment the text information into a plurality of pieces of sub-text information, and mark a start time and an end time of each piece of the sub-text information; and

a voiceprint segmenter configured to acquire, according to the start time and the end time of the sub-text information, sub-voice information corresponding to each piece of the sub-text information from the voice information.

15. The identity authentication system according to claim 14, wherein the voiceprint generator is further configured to store each pair of sub-voice information and sub-text information as a piece of reference voiceprint information of the first user.

16. The identity authentication system according to claim 13, wherein the voiceprint generator is further configured to:

determine whether second reference voiceprint information exists in a voiceprint library, wherein the second reference voiceprint information includes second text information and second identifier, the second text information is the same as the text information in the reference voiceprint information, and the second identifier is the same as the identifier of the first user;

if the second reference voiceprint information exists in the voiceprint library, compare a quality of the voice information in the reference voiceprint information with a quality of second voice information in the second reference voiceprint information;

if the quality of the voice information is lower than the quality of the second voice information, delete the reference voiceprint information; and

if the quality of the voice information is higher than the quality of the second voice information, delete the second reference voiceprint information.

17. A non-transitory computer readable medium that stores a set of instructions that is executable by at least one processor of a system to cause the system to perform a method for generating voiceprint information, the method comprising:

acquiring a plurality of historical voice files generated by a plurality of calls between a first user and one or more second users;

executing filtering processing on the plurality of historical voice files to obtain voice information of the first user, wherein the voice information includes a plurality of pieces of reference voiceprint information of the first user;

executing text recognition processing on the plurality of pieces of reference voiceprint information to obtain text information corresponding to the plurality of pieces of reference voiceprint information; and

storing an identifier of the first user and the plurality of pieces of reference voiceprint ~~voice~~ information and the corresponding text information;

wherein a randomly selected piece of the reference voiceprint information is sufficient for authenticating the first user.

18. The non-transitory computer readable medium of claim 17, wherein the set of instructions that is executable by the at least one processor of the system to cause the system to further perform:

segmenting the text information into a plurality of pieces of sub-text information;

marking a start time and an end time of each piece of the sub-text information; and

acquiring, according to the start time and the end time of the sub-text information, sub-voice information corresponding to each piece of the sub-text information from the voice information.

19. The non-transitory computer readable medium of claim 18, wherein the set of instructions that is executable by the at least one processor of the system to cause the system to further perform:

storing each pair of sub-voice information and sub-text information as a piece of reference voiceprint information of the first user.

20. The non-transitory computer readable medium of claim 17, wherein the set of instructions that is executable by the at least one processor of the system to cause the system to further perform:

determining whether second reference voiceprint information exists in a voiceprint library, wherein the second reference voiceprint information includes second text information and second identifier, the second text information is the same as the text information in the reference voiceprint information, and the second identifier is the same as the identifier of the first user;

in response to the second reference voiceprint information existing in the voiceprint library, comparing a quality of the voice information in the reference voiceprint information with a quality

of the second voice information in the second reference voiceprint information;

in response to the quality of the voice information being lower than the quality of second voice information, deleting the reference voiceprint information; and

in response to the quality of the voice information is higher than the quality of the second voice information, deleting the second reference voiceprint.

21. A non-transitory computer readable medium that stores a set of instructions that is executable by at least one processor of a system to cause the system to perform a method for identity authentication, the method comprising:

acquiring a plurality of historical voice files generated by a plurality of calls between a first user and one or more second users;

filtering processing on the plurality of historical voice files to obtain voice information of the first user, wherein the voice information includes a plurality of pieces of reference voiceprint information of the first user;

text recognition processing on the plurality of pieces of reference voiceprint information of the first user to obtain text information corresponding to the plurality of pieces of reference voiceprint information of the first user;

storing an identifier of the first user and the plurality of pieces of reference voiceprint information and the corresponding text information;

acquiring one of the plurality of pieces of reference voiceprint information corresponding to an identifier of a user to be authenticated;

outputting text information in the acquired reference voiceprint information, and receiving voice information to be authenticated;

comparing voice information in the acquired reference voiceprint information with the voice information to be authenticated;

in response to the voice information in the acquired reference voiceprint information matching with the voice information to be authenticated, determining that the authentication of the user succeeds; and

in response to the voice information in the acquired reference voiceprint information not matching with the voice information to be authenticated, determining that the authentication of the user fails;

wherein a randomly selected piece of the reference voiceprint information is sufficient for authenticating the first user.

22. The non-transitory computer readable medium of claim 21, wherein the set of instructions that is executable by the at least one processor of the system to cause the system to further perform:

segmenting the text information into a plurality of pieces of sub-text information; marking a start time and an end time of each piece of the sub-text information; and acquiring, according to the start time and the end time of the sub-text information,

sub-voice information corresponding to each piece of the sub-text information from the voice information.

23. The non-transitory computer readable medium of claim 22, wherein the set of instructions that is executable by the at least one processor of the system to cause the system to further perform:

storing each pair of sub-voice information and sub-text information as a piece of reference voiceprint information of the first user.

24. The non-transitory computer readable medium of claim 21, wherein the set of instructions that is executable by the at least one processor of the system to cause the system to further perform:

determining whether second reference voiceprint information exists in a voiceprint library, wherein the second reference voiceprint information includes second text information and second identifier, the second text information is the same as the text information in the reference voiceprint information, and the second identifier is the same as the identifier of the first user;

if the second reference voiceprint information exists in the voiceprint library, comparing a quality of the voice information in the reference voiceprint information with a quality of second voice information in the second reference voiceprint information;

if the quality of the voice information is lower than the quality of the second voice information, deleting the reference voiceprint information; and

if the quality of the voice information is higher than the quality of the second voice information, deleting the second reference voiceprint information.