

CLAIMS

What is claimed is:

1. An identity verification method, comprising:
 - obtaining a real-time face image of a user while the user is located in a waiting area that is adjacent to and not overlapping with a verification area, and storing the real-time face image;
 - obtaining an identification provided by the user while the user is located inside the verification area;
 - obtaining, based on the obtained identification, a pre-stored face image corresponding to the identification; and
 - performing, based on the stored real-time face image and the obtained pre-stored face image, identity verification on the user.
2. The method according to claim 1, wherein obtaining a real-time face image of a user while the user is located in a waiting area comprises:
 - obtaining a real-time image in the waiting area; and
 - extracting a face image from the real-time image as the real-time face image of the user.
3. The method according to claim 2, wherein extracting a face image from the real-time image comprises:
 - extracting, from the real-time image, a face image whose size falls within a specified size range.
4. The method according to claim 1, wherein the method further comprises:
 - deleting, from a plurality of stored real-time face images, a real-time face image obtained before a specified time period.
5. The method according to claim 1, wherein obtaining an identification provided by the user while the user is located inside the verification area comprises:
 - reading the identification from a radio frequency identification (RFID) tag or a near field communication (NFC) chip carried by the user.
6. The method according to claim 1, wherein performing, based on the stored real-time face image and the obtained pre-stored face image, identity verification on the user comprises:
 - determining whether a real-time face image that matches the obtained pre-stored

face image exists in a plurality of real-time face images comprising the stored real-time face image; and

if yes, determining that the user succeeds in identity verification; or

if no, determining that the user fails in identity verification.

7. An identity verification method, comprising:

obtaining and storing, by a server by using a collection device, a real-time face image of a user while the user is located in a waiting area that is adjacent to and not overlapping with a verification area;

receiving, by the server, an identification sent by the collection device, wherein the identification is provided to the collection device by the user while the user is located inside the verification area;

obtaining, by the server based on the identification, a pre-stored face image corresponding to the identification; and

performing, based on the stored real-time face image and the obtained pre-stored face image, identity verification on the user.

8. The method according to claim 7, wherein obtaining, by a server by using a collection device, a real-time face image of a user while the user is located in a waiting area comprises:

receiving, by the server, the real-time face image that is sent by the collection device and that corresponds to the user located in the waiting area; or

receiving, by the server, a real-time image that is sent by the collection device and that is in the waiting area, and extracting a face image from the real-time image as the real-time face image of the user.

9. An identity verification method, comprising:

obtaining, by a collection device, a real-time face image of a user while the user is located in a waiting area that is adjacent to and not overlapping with a verification area;

sending, by the collection device, the obtained real-time face image to a server for storage;

obtaining, by the collection device, an identification provided by the user while the user is located inside the verification area; and

sending, by the collection device, the obtained identification to the server, so the server obtains, based on the received identification, a pre-stored face image corresponding to the identification, and further performs, based on the stored real-time

face image and the obtained pre-stored face image, identity verification on the user.

10. The method according to claim 9, wherein obtaining, by a collection device, a real-time face image of a user while the user is located in a waiting area that is adjacent to and not overlapping with a verification area comprises:

collecting, by the collection device, a real-time image in the waiting area; and

extracting, by the collection device, a face image from the real-time image as the real-time face image of the user.

11. An identity verification system, comprising a collection device and a server, wherein

the collection device obtains a real-time face image or a real-time image, and sends the obtained real-time face image or real-time image to the server, wherein the real-time face image is a real-time face image of a user while the user is located in a waiting area that is adjacent to and not overlapping with a verification area, and the real-time image is a real-time image in the waiting area; and obtains an identification provided by the user while the user is located inside the verification area, and sends the obtained identification to the server; and

the server receives and stores the real-time face image sent by the collection device, or receives the real-time image sent by the collection device, and extracts a face image from the real-time image as a real-time face image for storage; and receives the identification sent by the collection device, obtains, based on the identification, a pre-stored face image corresponding to the identification, and performs, based on the stored real-time face image and the obtained pre-stored face image, identity verification on the user.

12. An identity verification apparatus, comprising:

a first acquisition module, configured to obtain and store, by using a collection device, a real-time face image of a user while the user is located in a waiting area that is adjacent to and not overlapping with a verification area;

a receiving module, configured to receive an identification sent by the collection device, wherein the identification is provided to the collection device by the user while the user is located inside the verification area;

a second acquisition module, configured to obtain, based on the identification, a pre-stored face image corresponding to the identification; and

an identity verification module, configured to perform, based on the stored real-time face image and the obtained pre-stored face image, identity verification on

the user.

13. The apparatus according to claim 12, wherein the first acquisition module receives the real-time face image that is sent by the collection device and that corresponds to the user located in the waiting area; or receives a real-time image that is sent by the collection device and that is in the waiting area, and extracts a face image from the real-time image as the real-time face image of the user.

14. A server, comprising one or more processors and one or more memories, wherein the memory stores a program, and the program is configured to be used by the one or more processors to perform the following steps:

obtaining and storing, by using a collection device, a real-time face image of a user while the user is located in a waiting area that is adjacent to and not overlapping with a verification area;

receiving an identification sent by the collection device, wherein the identification is provided to the collection device by the user while the user is located inside the verification area;

obtaining, based on the identification, a pre-stored face image corresponding to the identification; and

performing, based on the stored real-time face image and the obtained pre-stored face image, identity verification on the user.

15. An identity verification apparatus, comprising:

a first acquisition module, configured to obtain a real-time face image of a user while the user is located in a waiting area that is adjacent to and not overlapping with a verification area;

a first sending module, configured to send the obtained real-time face image to a server for storage;

a second acquisition module, configured to obtain an identification provided by the user while the user is located inside the verification area; and

a second sending module, configured to send the obtained identification to the server, so the server obtains, based on the received identification, a pre-stored face image corresponding to the identification, and further performs, based on the stored real-time face image and the obtained pre-stored face image, identity verification on the user.

16. The apparatus according to claim 15, wherein the first acquisition module obtains a real-time image in the waiting area; and extracts a face image from the

real-time image as the real-time face image of the user.

17. A collection device, comprising an image collector, an identification collector, and a communications unit, wherein

the image collector obtains a real-time face image of a user while the user is located in a waiting area that is adjacent to and not overlapping with a verification area;

the identification collector obtains an identification provided by the user while the user is located inside the verification area; and

the communications unit sends the obtained real-time face image and the obtained identification to a server, so the server stores the real-time face image, obtains, based on the received identification, a pre-stored face image corresponding to the identification, and further performs, based on the stored real-time face image and the obtained pre-stored face image, identity verification on the user.

18. The collection device according to claim 17, wherein the image collector comprises at least two cameras; and the cameras are installed at different positions, and are configured to photograph the waiting area at different directions.