CLAIMS

1. An interaction method, comprising:

obtaining, an image acquired by a camera, of a surrounding of a display device; wherein the display device displays an interactive object through a transparent display screen;

detecting at least one of a face or a body in the image to obtain a detection result; and

driving the interactive object displayed on the transparent display screen of the display device to respond according to the detection result.

2. The method of claim 1, wherein the display device displays a reflection of the interactive object on the transparent display screen, or displays the reflection of the interactive object on a base plate.

3. The method of claim 1 or 2, wherein the interactive object includes a virtual human with a stereoscopic effect.

4. The method of any of claims 1 to 3, wherein the detection result comprises at least a current service state of the display device;

the current service state comprises any of a waiting for user state, a user leaving state, a user detected state, a service activated state and an in-service state.

5. The method of claim 4, wherein detecting at least one of a face or a body in the image to obtain a detection result comprises:

in response to that the face and the body are not detected at a current time, and the face and the body are not detected within a preset time period before the current time, determining that the current service state is the waiting for user state;

in response to that the face and the body are not detected at a current time, and the face and the body are detected within a preset time period before the current time, determining that the current service state is the user leaving state; or

in response to that at least one of the face or the body is detected at the current time, determining that the current service state of the display device is the user detected state.

6. The method of claim 4, wherein the detection result further comprises at least one of user attribute information or user historical operation information;

the method further comprises at least one of: in response to determining that the current service state of the display device is the user detected state, obtaining the user attribute information through the image; or, searching for the user historical operation information that matches feature information of at least one of the face or the body of the user.

7. The method of any of claims 1 to 6, further comprising:

in response to that at least two users are detected, obtaining feature information of the at least two users;

determining a target user from the at least two users according to the feature information of the at least two users; and

driving the interactive object displayed on the transparent display screen of the display device to respond to the target user.

8. The method of any of claims 1 to 7, further comprising:

obtaining environment information of the display device;

wherein driving the interactive object displayed on the transparent display screen of the display device to respond according to the detection result comprises:

driving the interactive object displayed on the transparent display screen of the display device to respond according to the detection result and the environment information.

9. The method of claim 8, wherein the environment information comprises at least one of a geographic location of the display device, an IP address of the display device, a weather or date of an area where the display device is located.

10. The method of claim 8 or 9, wherein driving the interactive object displayed on the transparent display screen of the display device to respond according to the detection result and the environment information comprises:

obtaining a preset response label matching with the detection result and the environment information; and

driving the interactive object displayed on the transparent display screen to make a response corresponding to the preset response label.

11. The method of claim 10, wherein driving the interactive object displayed on the transparent display screen to make a response corresponding to the preset response label comprises:

inputting the preset response label to a trained neural network to output driving contents corresponding to the preset response label, wherein the driving content is used to drive the interactive object to output one or more of corresponding actions, expressions, or voices.

12. The method of any of claims 4 to 11, further comprising:

in response to determining that the current service state is the user detected state, after driving the interactive object to respond, tracking the user detected in the image of the surrounding of the display device;

during tracking the user, in response to detecting first trigger information output by the user, determining that the display device enters the service activated state; and

driving the interactive object to display a service matching the first trigger information.

13. The method of claim 12, further comprising:

when the display device is in the service activated state, in response to detecting second trigger information output by the user, determining that the display device enters the in-service state; and

driving the interactive object to display a service matching the second trigger information.

14. The method of any of claims 4 to 13, further comprising:

in response to determining that the current service state is the user detected state, obtaining position information of the user relative to the interactive object displayed on the transparent display screen according to a position of the user in the image; and

adjusting an orientation of the interactive object according to the position information so that the interactive object faces the user.

15. An interaction apparatus, comprising:

an image obtaining unit, configured to obtain, an image acquired by a camera, of a surrounding of a display device; wherein the display device displays an interactive object through a transparent display screen;

a detection unit, configured to detect at least one of a face or a body in the image to obtain a detection result; and

a driving unit, configured to drive the interactive object displayed on the transparent display screen of the display device to respond according to the detection result.

16. An interaction device, comprising:

a processor, and

a memory for storing instructions executable by the processor;

wherein when the instructions are executed, the processor is configured to implement the method of any of claims 1 to 14.

17. A computer-readable storage medium storing a computer program that, when executed by a processor, the processor implements the method of any of claims 1 to 14.