[DESCRIPTION]

[TITLE OF INVENTION]

INFORMATION PROCESSING APPARATUS, INFORMATION PROCESSING METHOD, AND STORAGE MEDIUM

[Technical Field]

[0001]

This disclosure relates to an information processing apparatus, an information processing method, and a storage medium.

[Background Art]

[0002]

Patent Literature 1 discloses an authentication apparatus that checks reality to see if a user is a human or not. The authentication apparatus disclosed in Patent Literature 1 checks reality of a user by determining whether or not a response to a challenge is correct that is information based on which the user to be authenticated inputs information used for an authentication process.

[Citation List]

[Patent Literature]

[0003]

PTL 1: International Publication No. WO 2015/194135

[Summary]

[0004]

When it is determined whether or not there is impersonation by using a photograph or the like based on a user's movement in accordance with a particular instruction such as a challenge as with the art disclosed in Patent Literature 1, the user may be unable to move properly in accordance with the particular instruction. Thus, in the art disclosed in

Patent Literature 1, it may be difficult to suitably collect necessary information based on the user's movement.

[0005]

In view of the problem described above, this disclosure provides an information processing apparatus, an information processing method, and a storage medium that can suitably acquire necessary biometrics information based on a user's movement.

[0006]

In one aspect, there is provided an information processing apparatus comprising: a memory configured to store instructions; and a processor configured to execute the instructions to: output first information to prompt a user to perform an action; acquire second information corresponding to the action performed by the user; display a frame indicating a progress of acquiring the second information; wherein the frame indicates that the action performed by the user is proper based on the second information matching the first information, and the frame indicates that the action performed by the user is improper based on the second information not matching the first information.

[0007]

In another aspect, there is provided an information processing method comprising: outputting first information to prompt a user to perform an action; acquiring second information corresponding to the action performed by the user; displaying a frame indicating a progress of acquiring the second information; wherein the frame indicates that the action performed by the user is proper based on the second information matching the first information, and the frame indicates that the action performed by the user is improper based on the second information not matching the first information.

[0008]

In another aspect, there is provided a storage medium storing a program that causes a computer to perform: outputting first information to prompt a user to perform an action; acquiring second information corresponding to the action performed by the user; displaying a frame indicating a progress of acquiring the second information; wherein the frame indicates that the action performed by the user is proper based on the second information matching the first information, and the frame indicates that the action performed by the user is improper based on the second information not matching the first information.

[0009]

An example advantage according to this disclosure is that necessary biometrics information can be suitably acquired based on a user's movement.

[Brief Description of Drawings]

[0010]

Fig. 1 is a block diagram illustrating a configuration of an information processing apparatus according to a first example embodiment of this disclosure.

Fig. 2 is a flowchart illustrating an operation of face authentication of the information processing apparatus according to the first example embodiment of this disclosure.

Fig. 3 is a flowchart illustrating an operation of impersonation determination in the information processing apparatus according to the first example embodiment of this disclosure.

Fig. 4 is a flowchart illustrating an operation of face recognition in the information processing apparatus according to the first example embodiment of this disclosure.

Fig. 5 is a schematic diagram illustrating one example of a login window in the information processing apparatus according to the first example embodiment of this disclosure.

Fig. 6 is a schematic diagram illustrating a face authentication window at the start of acquisition of face images in the information processing apparatus according to the first example embodiment of this disclosure.

Fig. 7 is a schematic diagram illustrating one

[CLAIMS]

[Claim 1]

An information processing apparatus comprising:

a memory configured to store instructions; and

a processor configured to execute the instructions to:

output first information to prompt a user to perform an action;

acquire second information corresponding to the action performed by the user;

display a frame indicating a progress of acquiring the second information;

wherein the frame indicates that the action performed by the user is proper based on the second information matching the first information, and the frame indicates that the action performed by the user is improper based on the second information not matching the first information.

[Claim 2]

The information processing apparatus according to claim 1,

wherein the movement instruction means indicates the movement by causing a display means to display the display that instructs the user about the movement, and

wherein the display control means controls the display that instructs the user about the movement in accordance with the movement status of the user.

[Claim 3]

The information processing apparatus according to claim 1 or 2, wherein the display control means causes a display means to display the display indicating progress status of acquisition of the biometrics information in accordance with the movement status of the user.

[Claim 4]

The information processing apparatus according to any one of claims 1 to 3 further comprising information provide means for providing guidance information when the information acquisition means is unable to acquire a predetermined amount of the biometrics information within a predetermined time period.

[Claim 5]

The information processing apparatus according to claim 4, wherein the guidance information is information regarding a movement or an environment of the user.

[Claim 6]

The information processing apparatus according to any one of claims 1 to 5,

wherein the movement instruction means instructs the user about the movement related to a head of the user, and

wherein the information acquisition means acquires multiple pieces of face information as the biometrics information from the user.

[Claim 7]

The information processing apparatus according to any one of claims 1 to 6 further comprising impersonation determination means for determining, based on the biometrics information, whether or not the user is impersonated.

[Claim 8]

The information processing apparatus according to claim 7 further comprising comparison means for comparing the biometrics information acquired by the information acquisition means with registered biometrics information.

[Claim 9]

An information processing method comprising:

outputting first information to prompt a user to perform an action;

acquiring second information corresponding to the action performed by the user;

displaying a frame indicating a progress of acquiring the second information;

wherein the frame indicates that the action performed by the user is proper based on the second information matching the first information, and the frame indicates that the action performed by the user is improper based on the second information not matching the first information.

[Claim 10]

A storage medium storing a program that causes a computer to perform:

outputting first information to prompt a user to perform an action;

acquiring second information corresponding to the action performed by the user;

displaying a frame indicating a progress of acquiring the second information;

wherein the frame indicates that the action performed by the user is proper based on the second information matching the first information, and the frame indicates that the action performed by the user is improper based on the second information not matching the first information.