

detection of a face region based on image data acquired by a predetermined imaging device; and changing setting for performing a face region detection process with image data acquired by another imaging device, based on a result of the detection.

[0009]

5 Further, a detection apparatus as another aspect-example of the present disclosure includes: a detection unit configured to perform detection of a face region based on image data acquired by a predetermined imaging device; and a setting change unit configured to change setting for performing a face region detection process with image data acquired by another imaging device, based on a result of the detection by the detection unit.

10 [0010]

Further, a recording medium as another aspect of the present disclosure is a non-transitory computer-readable recording medium having a program recorded thereon. The program includes instructions for causing a detection apparatus to realize: a detection unit configured to perform detection of a face region based on image data acquired by a predetermined imaging device; and
15 a setting change unit configured to change setting for performing a face region detection process with image data acquired by another imaging device, based on a result of the detection by the detection unit.

[0011]

The configurations as described above make it possible to provide a detection apparatus,
20 a detection method, and a recording medium which can inhibit failure to detect a face region.

BRIEF DESCRIPTION OF DRAWINGS

CLAIMS

1. A detection method executed by a detection apparatus, the detection method comprising:
performing detection of a face region based on image data acquired by a predetermined
5 imaging device; and
changing setting for performing a face region detection process with image data acquired
by another imaging device, based on a result of the detection.
2. The detection method according to Claim 1, comprising
10 instructing the other imaging device to adjust a parameter used when the other imaging
device acquires image data, based on the result of the detection.
3. The detection method according to Claim 1 or 2, comprising
adjusting a face detection threshold value used for performing the face region detection
15 process with the image data acquired by the other imaging device, based on the result of the
detection.
4. The detection method according to any one of Claims 1 to 3, comprising
in a case where a face region cannot be detected based on the image data acquired by the
20 predetermined imaging device, changing the setting for performing the face region detection
process with the image data acquired by the other imaging device.

5. The detection method according to any one of Claims 1 to 4, comprising

in a case where a face region cannot be detected based on the image data acquired by the predetermined imaging device, changing setting for performing the face region detection process with the image data acquired by the predetermined imaging device and performing detection of a face region, and thereafter, changing the setting for performing the face region detection process with the image data acquired by the other imaging device.

6. The detection method according to Claim 5, comprising

in a case where a face region cannot be detected based on the image data acquired by the predetermined imaging device, changing setting of a region estimated based on a result of detection of a posture of a person, and also performing detection of a face region on the region estimated based on the result of the detection of the posture of the person.

7. The detection method according to any one of Claims 1 to 6, comprising

in a case where there are a plurality of other imaging devices, estimating an imaging device located ahead in an advancing direction of a person based on a result of detection of a posture of the person, and changing setting for performing the face region detection process with image data acquired by the estimated imaging device.

8. The detection method according to any one of Claims 1 to 7, comprising

detecting a feature of a person, and instructing the imaging device to acquire image data in a state that the person is magnified based on a detected result.

9. ~~The detection method according to Claim 8, comprising~~
~~in a case where a feature of an undetected person is detected, instructing the imaging~~
~~device to acquire image data in a state that the person is magnified.~~

5

10. ~~The detection method according to any one of Claims 1 to 9, comprising:~~
~~performing face authentication based on the result of the detection of the face region; and~~
~~outputting a result of the face authentication, and information indicating an advancing~~
~~direction estimated based on a result of detection of a posture of a person identified by the result~~
~~of the face authentication.~~

10

911. A detection apparatus comprising:

a detection unit configured to perform detection of a face region based on image data
acquired by a predetermined imaging device; and

15 a setting change unit configured to change setting for performing a face region detection
process with image data acquired by another imaging device, based on a result of the detection by
the detection unit.

12. ~~The detection apparatus according to Claim 11, wherein~~

20 ~~the setting change unit is configured to instruct the other imaging device to adjust a~~
~~parameter used when the other imaging device acquires image data, based on the result of the~~
~~detection by the detection unit.~~

~~13. The detection apparatus according to Claim 12, wherein~~

~~the setting change unit is configured to adjust a face detection threshold value used for performing the face region detection process with the image data acquired by the other imaging device, based on the result of the detection by the detection unit.~~

~~14. The detection apparatus according to any one of Claims 11 to 13, wherein~~

~~the setting change unit is configured to, in a case where the detection unit cannot detect a face region based on the image data acquired by the predetermined imaging device, change the setting for performing the face region detection process with the image data acquired by the other imaging device.~~

~~15. The detection apparatus according to any one of Claims 11 to 14, wherein~~

~~the setting change unit is configured to, in a case where the detection unit cannot detect a face region based on the image data acquired by the predetermined imaging device, change setting for performing the face region detection process with the image data acquired by the predetermined imaging device and perform detection of a face region, and thereafter, change the setting for performing the face region detection process with the image data acquired by the other imaging device.~~

~~16. The detection apparatus according to Claim 15, wherein:~~

~~the setting change unit is configured to, in a case where the detection unit cannot detect a~~

~~face region based on the image data acquired by the predetermined imaging device, change setting of a region estimated based on a result of detection of a posture of a person; and~~

~~the detection unit is configured to perform detection of a face region on the region estimated based on the result of the detection of the posture of the person.~~

5

~~17. The detection apparatus according to any one of Claims 11 to 16, comprising~~

~~a move destination estimation unit configured to estimate an imaging device located ahead in an advancing direction of a person based on a result of detection of a posture of the person;~~

~~wherein the setting change unit is configured to change setting for performing the face region detection process with image data acquired by the imaging device estimated by the move destination estimation unit.~~

10

~~18. The detection apparatus according to any one of Claims 11 to 17, comprising:~~

~~a feature detection unit configured to detect a feature of a person; and~~

~~a magnification instruction unit configured to instruct the imaging device to acquire image data in a state that the person is magnified based on a result detected by the feature detection unit.~~

15

~~19. The detection apparatus according to Claim 18, wherein~~

~~the magnification instruction unit is configured to, in a case where the detection unit detects a feature of an undetected person, instruct the imaging device to acquire image data in a state that the person is magnified.~~

20

20. ~~The detection apparatus according to any one of Claims 11 to 19, comprising:~~

~~— a face authentication unit configured to perform face authentication based on the result of the detection of the face region; and~~

~~— an output unit configured to output a result of the face authentication by the face authentication unit, and information indicating an advancing direction estimated based on a result of detection of a posture of a person identified by the result of the face authentication by the face authentication unit.~~

1021. A non-transitory computer-readable recording medium having a program recorded

thereon, the program comprising instructions for causing a detection apparatus to realize:

a detection unit configured to perform detection of a face region based on image data acquired by a predetermined imaging device; and

a setting change unit configured to change setting for performing a face region detection process with image data acquired by another imaging device, based on a result of the detection by the detection unit.