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Patent Application 2021-539888

International Application PCT/IB2020/000021

[International Publication WO2020/144536](#)

[Publication of Japanese Translation of PCT International Application 2022-516768](#)

Patent valid (Annual fee paid)

 OPD

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Scope of Claims (Patent Application 2021-539888)

[Name of document] Scope of Patent Claims

[Claim 1]

A method for providing assistance to a user by an eyewear device, wherein: the method comprises
a step in which first data is received from a first sensor,
a step in which a state of the user is analyzed, and
a step in which assistance is provided to the user;
the first sensor is incorporated into the eyewear device; the first sensor measures a parameter associated with the user; the analysis uses the first data; the assistance is in the form of feedback; and the feedback is associated with the state.

[Claim 2]

The method of claim 1, wherein a passive state is associated with the state.

[Claim 3]

The method of claim 2, wherein the feedback is configured to help the user to correct the passive state.

[Claim 4]

The method of claim 3, wherein the feedback is an audio signal transmitted from a speaker in a temple of the eyewear device.

[Claim 5]

The method of claim 3, wherein the feedback is generated externally to the eyewear device.

[Claim 6]

The method of claim 5, wherein the feedback is communicated from a person.

[Claim 7]

The method of claim 1, wherein an active state is associated with the state.

[Claim 8]

The method of claim 7, wherein the feedback is designed to help the user by promoting the active state.

[Claim 9]

The method of claim 8, wherein the feedback is an audio signal transmitted from a speaker in a temple of the eyewear device.

[Claim 10]

The method of claim 1, wherein: the method also comprises a step in which a context of the user is determined; the determination uses the first data during the determination; and the feedback is associated with the state and the context.

[Claim 11]

The method of claim 10, wherein a passive state is associated with the state.

[Claim 12]

The method of claim 11, wherein the feedback is configured to help the user to correct the passive state.

[Claim 13]

The method of claim 12, wherein the feedback is an audio signal transmitted from a speaker in a temple of the eyewear device.

[Claim 14]

The method of claim 12, wherein the feedback is generated externally to the eyewear device.

[Claim 15]

The method of claim 14, wherein the feedback is communicated from a person.

[Claim 16]

The method of claim 10, wherein an active state is associated with the state.

[Claim 17]

The method of claim 16, wherein the feedback is designed to help the user by promoting the active state.

[Claim 18]

The method of claim 10, wherein: the method further comprises a step in which second data is received from a second sensor; the second sensor is an external sensor; and the analysis uses the first data and the second data.

[Claim 19]

A method for providing assistance to a user with an eyewear device, wherein: the method comprises
a step in which first data is received from a first sensor,
a step in which a context of the user is determined, and
a step in which assistance is provided to the user;

the first sensor is incorporated into the eyewear device; the first sensor measures a parameter associated with the

user; the determination uses the first data during the determination, and the assistance is associated with the context.

[Claim 20]

The method of claim 19, wherein a first element of the context is a body posture of the user.

[Claim 21]

The method of claim 20, wherein a second element of the context is an activity being performed by the user.

[Claim 22]

The method of claim 20, wherein a third element of the context is an environment of the user.

[Claim 23]

The method of claim 19, wherein the assistance is in the form of an audio communication to the user.

[Claim 24]

The method of claim 19, wherein: the method further comprises a step in which second data is received from a second sensor; the second sensor is an external sensor; and the determination uses the first data and the second data.

[Claim 25]

A computer-readable storage medium, wherein:

program code for causing a data processing system to perform steps is stored, the steps comprising

a step in which first data is received from a first sensor,

a step in which a context of a user is determined, and

a step in which assistance is provided to the user;

the first sensor is incorporated into an eyewear device; the first sensor measures a parameter associated with the user; the determination uses the first data; and the assistance is associated with the context.

[Claim 26]

The computer-readable storage medium of claim 25, wherein a first element of the context is a body posture of the user.

[Claim 27]

The computer-readable storage medium of claim 26, wherein a second element of the context is an activity being performed by the user.

[Claim 28]

The computer-readable storage medium of claim 26, wherein a third element of the context is an environment of the user.

[Claim 29]

The computer-readable storage medium of claim 25, wherein the assistance is in the form of an audio communication to the user.

[Claim 30]

The computer-readable storage medium of claim 25, wherein: the steps further comprise a step in which a state of the user is analyzed; the analysis uses the first data; and the assistance is associated with the state and the context.

[Claim 31]

The computer-readable storage medium of claim 30, wherein: the steps further comprise a step in which second data is received from a second sensor; the second sensor is an external sensor; and the determination uses the first data and the second data.

[Claim 32]

A system for providing assistance to a user via an eyewear device through execution by a data processing system, wherein: the system comprises

an audio interface having a microphone and a speaker for receiving user commands and providing assistance to the user,

a sensor data input for receiving sensor data,

a processor in electrical communication with the audio interface and the sensor data, and

a computer program for processing the sensor data;

the computer program and the processor cause the data processing system to perform steps, the steps comprising

a step in which first data is received from a first sensor,

a step in which a context of the user is determined,

a step in which a state of the user is analyzed, and

a step in which assistance is provided to the user;

the first sensor is incorporated into the eyewear device; the first sensor measures a parameter associated with the user; the determination uses the first data; the analysis uses the first data; and the assistance is associated with the context and the state.

[Claim 33]

The system of claim 32, wherein the analysis considers a category selected from the group consisting of health, welfare, safety, cognition, body, and emotion.

[Claim 34]

The system of claim 33, wherein the assistance is designed to help the user to correct a passive state.

[Claim 35]

The system of claim 33, wherein the assistance is designed to help the user by promoting an active state.

[Claim 36]

The system of claim 35, wherein the system further comprises a device for providing the assistance to the user, the device being located externally to the eyewear device and being in electrical communication with the eyewear device.

[Claim 37]

The system of claim 32, wherein: the steps further comprise a step in which second data from is received a second sensor; the second sensor is an external sensor; the determination uses the first data and the second data; and the analysis uses the first data and the second data.

[Claim 38]

The system of claim 32, wherein: the steps further comprise a step in which third data is received from a plurality of implanted sensors; the determination uses the first data and the third data; and the analysis uses the first data and the third data.



Written Amendment (Voluntary/Content) (Patent Application 2021-539888)

P.1

[Name of document] Written Amendment

[Reference number] 211170AAB

[Recipient] Commissioner of the Patent Office

[Indication of case]

[International application number] PCT/IB2020/000021

[Classification of application] Patent

[Person submitting amendment]

[Identification number] 521253871

[Name] Solos Technology Limited

[Representative]

[Identification number] 110002262

[Name] TRY International Patent Office

[Representative] Akira Ishikawa

[Telephone number] 03-5545-5422

[Amendment 1]

[Name of document to be amended] Scope of Patent Claims

[Name item to be amended] Full text

[Amendment type] Change

[Content of amendment]

[Name of document] Scope of Patent Claims

[Claim 1]

A method for providing assistance to a user by an eyewear device, wherein: the method comprises

a step in which first data is received from a first sensor,

a step in which a state of the user is analyzed, and

a step in which assistance is provided to the user;

the first sensor is incorporated into the eyewear device; the first sensor measures a parameter associated with the user; the analysis uses the first data; the assistance is in the form of feedback; and the feedback is associated with the state.

[Claim 2]

The method of claim 1, wherein a passive state is associated with the state and the feedback is configured to assist the user in correcting the passive state.

[Claim 3]

The method of claim 2, wherein the feedback is an audio signal transmitted from a speaker in a temple of the eyewear device, is generated externally to the eyewear device, or is communicated from a person.

[Claim 4]

The method of claim 1, wherein an active state is associated with the state and the feedback is designed to help the user by promoting the active state.

[Claim 5]

The method of claim 4, wherein the feedback is an audio signal transmitted from a speaker in a temple of the eyewear device.

[Claim 6]

The method of claim 1, wherein: the method also comprises a step in which a context of the user is determined; the determination uses the first data during the determination; and the feedback is associated with the state and the context.

[Claim 7]

The method of claim 6, wherein a passive state is associated with the state and the feedback is configured to assist the user in correcting the passive state.

[Claim 8]

The method of claim 7, wherein the feedback is an audio signal transmitted from a speaker in a temple of the eyewear device, is generated externally to the eyewear device, or is communicated from a person.

[Claim 9]

The method of claim 6, wherein an active state is associated with the state and

the feedback is designed to help the user by promoting the active state.

[Claim 10]

The method of claim 6, wherein: the method further comprises a step in which second data is received from a second sensor; the second sensor is an external sensor; and the analysis uses the first data and the second data.

[Claim 11]

A method for providing assistance to a user with an eyewear device, wherein: the method comprises
a step in which first data is received from a first sensor,
a step in which a context of the user is determined, and
a step in which assistance is provided to the user;
the first sensor is incorporated into the eyewear device; the first sensor measures a parameter associated with the user; the determination uses the first data during the determination, and the assistance is associated with the context.

[Claim 12]

The method of claim 11, wherein a first element of the context is a body posture of the user, a second element of the context is an activity being performed by the user, and a third element of the context is an environment of the user.

[Claim 13]

The method of claim 11, wherein the assistance is in the form of an audio communication to the user.

[Claim 14]

The method of claim 11, wherein: the method further comprises a step in which second data is received from a second sensor; the second sensor is an external sensor; and the determination uses the first data and the second data.

[Claim 15]

A computer-readable storage medium, wherein:
program code for causing a data processing system to perform steps is stored, the steps comprising
a step in which first data is received from a first sensor,
a step in which a context of a user is determined, and
a step in which assistance is provided to the user;
the first sensor is incorporated into an eyewear device; the first sensor measures a parameter associated with the user; the determination uses the first data; and the assistance is associated with the context.

[Claim 16]

The computer-readable storage medium of claim 15, wherein a first element of the context is a body posture of

the user, a second element of the context is an activity being performed by the user, and a third element of the context is an environment of the user.

[Claim 17]

The computer-readable storage medium of claim 15, wherein the assistance is in the form of an audio communication to the user.

[Claim 18]

The computer-readable storage medium of claim 15, wherein: the steps further comprise a step in which a state of the user is analyzed; the analysis uses the first data; and the assistance is associated with the state and the context.

[Claim 19]

The computer-readable storage medium of claim 18, wherein: the steps further comprise a step in which second data is received from a second sensor; the second sensor is an external sensor; and the determination uses the first data and the second data.

[Claim 20]

A system for providing assistance to a user via an eyewear device through execution by a data processing system, wherein: the system comprises

an audio interface having a microphone and a speaker for receiving user commands and providing assistance to the user,

a sensor data input for receiving sensor data,

a processor in electrical communication with the audio interface and the sensor data, and

a computer program for processing the sensor data;

the computer program and the processor cause the data processing system to perform steps, the steps comprising

a step in which first data is received from a first sensor,

a step in which a context of the user is determined,

a step in which a state of the user is analyzed, and

a step in which assistance is provided to the user;

the first sensor is incorporated into the eyewear device; the first sensor measures a parameter associated with the user; the determination uses the first data; the analysis uses the first data; and the assistance is associated with the context and the state.

[Claim 21]

The system of claim 20, wherein the analysis considers a category selected from the group consisting of health,

welfare, safety, cognition, body, and emotion.

[Claim 22]

The system of claim 21, wherein the assistance is designed to help the user to correct a passive state.

[Claim 23]

The system of claim 21, wherein the assistance is designed to help the user by promoting an active state.

[Claim 24]

The system of claim 23, wherein the system further comprises a device for providing the assistance to the user, the device being located externally to the eyewear device and being in electrical communication with the eyewear device.

[Claim 25]

The system of claim 20, wherein: the steps further comprise a step in which second data from is received a second sensor; the second sensor is an external sensor; the determination uses the first data and the second data; and the analysis uses the first data and the second data.

[Claim 26]

The system of claim 32, wherein: the steps further comprise a step in which third data is received from a plurality of implanted sensors; the determination uses the first data and the third data; and the analysis uses the first data and the third data.

[Amendment 2]

[Name of document to be amended] Drawings

[Name of item to be amended] All drawings

[Amendment type] Change

[Content of amendment]

[Name of document] Drawings

[Figure 1]



Notice of Reasons for Refusal (Patent Application 2021-539888)

Notice of Reasons for Refusal

Patent Application Number: Japanese Patent Application No. 2021-539888

Proposed: June 20, 2022

Examiner: Shoko Mitsuyoshi 1597 5E00

Patent Applicant Agent: TRY International Patent Office

Applicable provisions: Article 29 (1) (iii) (Novelty), Article 29 (2) (inventive step), Article 36 (6) (I) (Support Requirements), Article 36 (6) (ii) (Clarity)

This application should be refused for the reason mentioned below. If the applicant has any opinion(s) against the reason, a written opinion should be submitted within three months from the date on which this notification was dispatched.

Reason

1. (Novelty) The claimed invention(s) listed below of this patent application shall not be granted a patent under the provisions of Patent Act Article 29 (1) (iii) for the reason that the claimed invention(s) has/have been deemed to be identical with the invention(s) described in the distributed publication(s) listed below or made available to the public through electric telecommunication lines in Japan or other foreign countries prior to the filing of the patent application.
2. (Inventive step) The claimed invention(s) listed below of this patent application shall not be granted a patent under the provisions of Patent Act Article 29 (2) for the reason that the claimed invention(s) could have easily been made by persons who have common knowledge in the technical field to which the claimed invention(s) pertains on the basis of the invention(s) described in the distributed publication listed below or made available to the public through electric telecommunication lines in Japan or a foreign country prior to the filing of the patent application.

3. (Support Requirement) The Scope of Patent Claims of this patent application does not fulfill the requirements of the provisions of Patent Act Article 36 (6) (i) in terms of the item(s) listed below.

4. (Clarity) The Scope of Patent Claims of this patent application does not fulfill the requirements of the provision of Patent Act Article 36 (6) (ii) in terms of the item(s) listed below.

Note (For the cited documents, please refer to the list of cited documents below)

- Reason 1 (Novelty) and Reason 2 (Inventive Step)
- Claim 1
- Cited Documents, etc. 1
- Remarks

Cited Document 1 describes an invention of a method for giving feedback (“providing support to the user”) to the user to promote or suppress behavior by a glasses-type HMD (corresponding to the “eyewear device” of the invention as in Claim 1; the same applies hereinafter), in which the user’s emotion is determined based on sensing data (“first data” and “a parameter”) detected by a sensor (“first sensor,” “the first sensor is incorporated in the eyewear device”) provided on the glasses-type HMD (“a state of the user is analyzed” and “the analysis uses the first data”), the feedback is determined based on the emotion determination result, and the determined feedback is executed (“the assistance is in the form of feedback, and the feedback is associated with the state”) (paragraphs [0023]–[0070]).

Therefore, there is no difference between the invention-defining features of the invention as in Claim 1 of the present application and the invention-defining features of the invention described in Cited Document 1, and the invention as in Claim 1 of the present application is the invention described in Cited Document 1. In addition, the invention as in Claim 1 of the present application could have been easily invented by a person skilled in the art based on the invention described in Cited Document 1.

- Claims 6, 11, 15, 18, 20, and 21
- Cited Document, etc. 1
- Remarks

Cited Document 1 also discloses a feature in which a situation or behavior (“context”) of the user are recognized based on the sensing data and an emotion of the user is determined based on the situation and the behavior of the user (paragraphs [0035]–[0041]).

- Claims 2, 7, and 22
- Cited Document, etc. 1
- Remarks

See paragraphs [0067]–[0068], etc. of Cited Document 1.

- Claims 3, 5, and 8
- Cited Document, etc. 1
- Remarks

See paragraphs [0024], [0029], etc. of Cited Document 1.

- Claims 4, 9, and 23
- Cited Document, etc. 1
- Remarks

See paragraph [0066] of Cited Document 1.

- Claims 10, 14, 19, 25, and 26
- Cited Document, etc. 1
- Remarks

See paragraph [0025] of Cited Document 1.

- Claims 12 and 16
- Cited Document, etc. 1
- Remarks

See paragraphs [0026]–[0027], [0040], etc. of Cited Document 1.

- Claims 13 and 17
- Cited Document, etc. 1
- Remarks

See paragraph [0029], etc. of Cited Document 1.

- Claim 24
- Cited Document, etc. 1
- Remarks

See paragraph [0029], etc. of Cited Document 1.

- Reason 3 (Support Requirement)
- Claims 2–5 and 7–9

(1) Regarding the phrase “a passive state is associated with the state” in Claims 2 and 7, the portion substantially described in the Detailed Description of the Invention is unclear. (The term “associated with the state” is not used in the Detailed Description of the Invention. In addition, although paragraph [0079] states that “it is determined that the user is in a passive state,” it is unclear whether or not the determination that the user is in a passive state corresponds to the feature in which “a passive state is associated with the state” in Claim 2.)

The same applies to the phrase “an active state is associated with the state” in Claims 4 and 9.

(2) Regarding the statement that the feedback is “is generated externally to the eyewear device, or is communicated from a person” in Claims 3 and 8, it is unclear what portion of this is substantially described in the detailed description of the invention.

Therefore, the inventions as in Claims 2–4 and 7–9 and the invention as in Claim 5, which is dependent on these claims, are not described in the Detailed Description of the Invention.

- Reason 4 (Clarity)
- Claims 2-5, 7-9,12, and 16

(1) Regarding the phrase “a passive state is associated with the state” in Claims 2 and 7, it is unclear what “associated with the state” in particular specifically refers to.

The same applies to the phrase “an active state is associated with the state” in Claims 4 and 9.

(2) Regarding the phrase “a first element of the context is a body posture of the user, a second element of the context is an activity being performed by the user, and a third element of the context is an environment of the user” in Claim 12, it is unclear whether this refers to determining at least one of the body posture, activity, and environment, or determining all of the body posture, activity, and environment. when “a context of the user is determined” as in Claim 11. The same applies to the phrase “a first element of the context is a body posture of the user, a second element of the context is an activity being performed by the user, and a third element of the context is an environment of the user” in Claim 16.

Therefore, the inventions as in Claims 2, 4, 7, 9, 12, 16 and Claims 3, 5, and 8, which are dependent on these claims, are not clear.

<List of Cited Documents etc.>

1. International Publication No. WO 2019/207896

<Record of Prior Art Search Results>

- Fields searched	IPC	G06F	3/01
		G06F	3/16
		H04N	5/232

This Record of Prior Art Search Results does not constitute a reason for refusal.

<Precautions for amending>

(1) When amending the Specification or the Scope of Patent Claims, the amended parts should be underlined so as to be clearly identified (please refer to Note 6 and 7 of Form 13, Patent Act Enforcement Regulations).

(2) Amendments must not go beyond the Specification, Scope of Patent Claims, or Drawings of the present application as originally filed. In addition, it is advisable to assert the legality in a Written Opinion with clear indication of the corresponding parts in the Specification, etc. as originally filed that serve as evidence for the

legitimacy of the amendment for each amended item.

(3) Please be sure not to make any corrections in violation of Patent Act Article 17-2 (4) when amending the Scope of Patent Claims.

If you have any questions or are would like to have an interview with the examiner to discuss issues in this notification of reasons for refusal, please contact us at the location noted below. If you wish to send a draft amendment by e-mail or other means, please notify us by phone.

Shoko Mitsuyoshi, Examination Department IV, Interfaces (PA5E)

TEL: 03 3581 1101 ext. 3519

Chief Examiner / Deputy	Examiner	Assistant Examiner
Shiho Nagano	Shoko Mitsuyoshi	
3350	1597	



Inquiry of History Information

Written Amendment (voluntary/content) (Patent Application 2021-539888)

[Name of document] Written Amendment

[Reference number] 211170AAB

[Recipient] Commissioner of the Patent Office

[Indication of case]

[International application number] PCT/IB2020/000021

[Classification of application] Patent

[Person submitting amendment]

[Identification number] 521253871

[Name] Solos Technology Limited

[Representative]

[Identification number] 110002262

[Name] TRY International Patent Office

[Representative] Akira Ishikawa

[Telephone number] 03-5545-5422

[Amendment 1]

[Name of document to be amended] Scope of Patent Claims

[Name item to be amended] Full text

[Amendment type] Change

[Content of amendment]

[Name of document] Scope of Patent Claims

[Claim 1]

A method for providing assistance to a user by an eyewear device, wherein: the method comprises
a step in which first data is received from a first sensor,
a step in which a state of the user is analyzed,

a step in which a context of the user is determined,

a step in which it is determined whether the assistance is necessary based on the state and the context,

a step in which a risk level is determined if the assistance is determined to be necessary, and

a step in which the assistance is determined based on the risk level and the assistance is provided to the user;

the first sensor is incorporated into the eyewear device; the first sensor measures a parameter associated with the user; the analysis and the determination of the context use the first data; the assistance is in the form of feedback; and the risk level relates to the context, the state, and the first data.

[Claim 2]

The method of claim 1, wherein a passive state is associated with the state and the feedback is configured to assist the user in correcting the passive state.

[Claim 3]

The method of claim 2, wherein the feedback is an audio signal transmitted from a speaker in a temple of the eyewear device, or

the feedback is generated by a device located externally to the eyewear device, the device being in electrical communication with the eyewear device.

[Claim 4]

The method of claim 1, wherein an active state is associated with the state and the feedback is designed to help the user by promoting the active state.

[Claim 5]

The method of claim 4, wherein the feedback is an audio signal transmitted from a speaker in a temple of the eyewear device.

[Claim 6]

The method of claim 1, wherein the first sensor comprises one or more cameras and the context is determined by analyzing images from the one or more cameras.

[Claim 7]

The method of claim 1, wherein the first sensor comprises one or more cameras and one or more microphones and
the context is determined by analyzing images from the one or more cameras and microphone data from the one or more microphones.

[Claim 8]

The method of claim 1, wherein the method further comprises a step in which a system of the eyewear device is shut down if temple of the eyewear device is moved to a closed position.

[Claim 9]

The method of claim 1, wherein: the method further comprises a step in which second data is received from a second sensor; the second sensor is an external sensor; and the analysis uses the first data and the second data.

[Claim 10]

The method of claim 1, wherein the context comprises one or more of a body posture of the user, an activity being performed by the user, and an environment in which the user is located.

[Claim 11]

The method of claim 1, wherein the assistance is in the form of an audio communication to the user.

[Claim 12]

The method of claim 10, wherein the body posture of the user comprises the posture of the head of the user.

[Claim 13]

A computer-readable storage medium, wherein:

program code for causing a data processing system to perform steps is stored, the steps comprising

a step in which first data is received from a first sensor,

a step in which a state of the user is analyzed,

a step in which a context of a user is determined,

a step in which it is determined whether the assistance is necessary based on the state and the context,

a step in which a risk level is determined if the assistance is determined to be necessary, and

a step in which the assistance is determined based on the risk level and the assistance is provided to the user;

the first sensor is incorporated into an eyewear device; the first sensor measures a parameter associated with the user; the analysis and the determination of the context use the first data; the assistance is in the form of feedback; and the risk level relates to the context, the state, and the first data.

[Claim 14]

The computer-readable storage medium of claim 13, wherein the context comprises one or more of a body posture of the user, an activity being performed by the user, and an environment in which the user is located.

[Claim 15]

The computer-readable storage medium of claim 13, wherein the assistance is in the form of an audio communication to the user.

[Claim 16]

The computer-readable storage medium of claim 13, wherein: the steps further comprise a step in which second data is received from a second sensor; the second sensor is an external sensor; and the determination of the context uses the first data and the second data.

[Claim 17]

A system for providing assistance to a user via an eyewear device through execution by a data processing system, wherein: the system comprises

an audio interface having a microphone and a speaker for receiving user commands and providing the assistance to the user,

a sensor data input for receiving sensor data,

a processor in electrical communication with the audio interface and the sensor data, and

a computer program for processing the sensor data;

the computer program and the processor cause the data processing system to perform steps, the steps comprising

a step in which first data is received from a first sensor,

a step in which a context of the user is determined,

a step in which a state of the user is analyzed,

a step in which it is determined whether the assistance is necessary based on the state and the context,

a step in which a risk level is determined if the assistance is determined to be necessary, and

a step in which the assistance is determined based on the risk level and the assistance is provided to the user;

the first sensor is incorporated into an eyewear device; the first sensor measures a parameter associated with the user; the analysis and the determination of the context use the first data; the assistance is in the form of feedback; and the risk level relates to the context, the state, and the first data.

[Claim 18]

The system of claim 17, wherein the analysis considers a category selected from the group consisting of health, welfare, safety, cognition, body, and emotion.

[Claim 19]

The system of claim 18, wherein the assistance is designed to help the user to correct a passive state.

[Claim 20]

The system of claim 18, wherein the assistance is designed to help the user by promoting an active state.

[Claim 21]

The system of claim 20, wherein the system further comprises a device for providing the assistance to the user, the device being located externally to the eyewear device and being in electrical communication with the eyewear device.

[Claim 22]

The system of claim 17, wherein: the steps further comprise a step in which second data from is received a second sensor; the second sensor is an external sensor; the determination of the context uses the first data and the second data; and the analysis uses the first data and the second data.

[Claim 23]

The system of claim 17, wherein: the steps further comprise a step in which third data is received from a plurality of implanted sensors; the determination uses the first data and the third data; and the analysis uses the first data and the third data.



Written Opinion (Patent Application 2021-539888)

[Name of document] Written Amendment

[Reference number] 211170AAB

[Recipient] Commissioner of the Patent Office

[Indication of case]

[Application number] Japanese Patent Application 2021-539888

[Patent applicant]

[Identification Number] 521253871

[Name] Solos Technology Limited

[Representative]

[Identification number] 110002262

[Name] TRY International Patent Office

[Representative] Akira Ishikawa

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[Shipping number] 293155

[Content of opinion]

1. Reasons for Refusal

The examiner notified the following reasons for refusal in the notice of reasons for refusal dated June 28, 2022 (dispatch date).

Reason 1 (Novelty)

The inventions as in Claims 1–26 of this application are inventions described in Cited Document 1 (International Publication No. WO 2019/207896), and therefore fall under the Patent Act Article 29 (1) (iii) and cannot be granted a patent.

Reason 2 (Inventive Step)

The inventions as in Claims 1–26 of this application shall not be granted a patent under the provisions of Patent Act Article 29 (2) for the reason that the inventions could have been easily made by a person skilled in the art prior

to the filing of the application based on the invention described in Cited Document 1.

Reason 3 (Support Requirement)

The inventions as in Claims 2–5 and 7–9 of this application and Claim 5, which is dependent on these claims, are not described in the detailed description of the invention, and therefore do not satisfy the requirements provided in Patent Act Article 36 (6) (I).

Reason 4 (Clarity)

The inventions according to Claims 2–5, 7–9, 12, and 16 of this application do not satisfy the requirements provided in Patent Act Article 36 (6) (ii).

The applicant amended the Scope of Patent Claims in a Written Amendment submitted at the same time as this Written Opinion. The applicant considers that the above-mentioned reasons for refusal will be resolved by this amendment, and thus the applicant would like to express the following opinions.

2. Amendment and its basis

As will be described below, the claim numbers before and after this amendment are different. The correspondence between the claims after the amendment and the claims before the amendment is as follows. In addition, in the following, the claims before the amendment is appropriately referred to as the “old claims” and the claims after the amendment are appropriately referred to as the “new claims,” and the content of the amendment will be explained below.

Amended claims	Claims before amendment
New Claims 1–8	Old Claims 1–8
New Claim 9	Old Claim 10
New Claims 10–15	Old Claims 12–17
New Claims 16–23	Old Claims 19–26
Deleted	Old Claims 9, 11, and 18

(1) The old Claim 1 has been amended as follows to form the new Claim 1. Namely, the new Claim 1 has been amended to read, “A method for providing assistance to a user by an eyewear device, wherein: the method comprises a step in which first data is received from a first sensor, a step in which a state of the user is analyzed, a step in which a context of the user is determined, a step in which it is determined whether the assistance is necessary based on the state and the context, a step in which a risk level is determined if the assistance is determined to be necessary, and a step in which the assistance is determined based on the risk level and the assistance is provided to the user; the first

sensor is incorporated into the eyewear device; the first sensor measures a parameter associated with the user; the analysis and the determination of the context use the first data; the assistance is in the form of feedback; and the risk level relates to the context, the state, and the first data.”

The above amendment is based on the descriptions in paragraphs [0095]–[0097] and Figure 23 of the Specification of the present application.

(2) The old Claim 2 has been amended as follows to form the new Claim 2. Namely, in the new Claim 2, the phrase “a passive state is associated with the state” from before the amendment was deleted.

(3) The old Claim 3 has been amended as follows to form the new Claim 3. Namely, the new Claim 3 has been amended to read, “The method of claim 2, wherein the feedback is an audio signal transmitted from a speaker in a temple of the eyewear device, or the feedback is generated by a device located externally to the eyewear device, the device being in electrical communication with the eyewear device.” The above amendment is based on the old Claim 24 in the Specification of the present application.

(4) The old Claim 4 has been amended as follows to form the new Claim 4. Namely, in the new Claim 4, the phrase “an active state is associated with the state” from before the amendment was deleted.

(5) The old Claim 6 has been amended as follows to form the new Claim 6. Namely, the new Claim 6 has been amended to read, “The method of claim 1, wherein the first sensor comprises one or more cameras and the context is determined by analyzing images from the one or more cameras.”

The above amendment is based on paragraph [0100] and Figure 24 of the Specification of the present application.

(6) The old Claim 7 has been amended as follows to form the new Claim 7. Namely, the new Claim 7 has been amended to read, “The method of claim 1, wherein the first sensor comprises one or more cameras and one or more microphones and the context is determined by analyzing images from the one or more cameras and microphone data from the one or more microphones.”

The above amendment is based on paragraph [0100] and Figure 24 of the Specification of the present application.

(7) The old Claim 8 has been amended as follows to form the new Claim 8. Namely, the new Claim 8 has been amended to read, “The method of claim 1, wherein the method further comprises a step in which a system of the eyewear device is shut down if temple of the eyewear device is moved to a closed position.”

The above amendment is based on paragraph [0091] of the Specification of the present application.

(8) The old Claims 9 and 11 have been deleted. The citation relationship to the old Claim 10 has been amended

to the new Claim 9. The new Claim 9 cites the new Claim 1.

(9) The old Claim 12 is amended as follows to form the new Claim 10. Namely, the new Claim 10 has been amended to read, “The method of claim 1, wherein the context comprises one or more of a body posture of the user, an activity being performed by the user, and an environment in which the user is located.”

The above amendment is based on paragraph [0089] of the Specification of the present application.

(10) The citation relationship to the old Claim 13 has been amended the new Claim 11. The new Claim 11 cites the new Claim 1.

(11) The old Claim 14 has been amended as follows to form the new Claim 12. Namely, the new Claim 12 has been amended to read, “The method of claim 10, wherein the body posture of the user comprises the posture of the head of the user.” The above amendment is based on paragraph [0090] of the Specification of the present application.

(12) The old Claim 15 is amended as follows to form the new Claim 13. Namely, the new Claim 13 is has been amended to read “A computer-readable storage medium, wherein: program code for causing a data processing system to perform steps is stored, the steps comprising a step in which first data is received from a first sensor, a step in which a state of the user is analyzed, a step in which a context of a user is determined, a step in which it is determined whether the assistance is necessary based on the state and the context, a step in which a risk level is determined if the assistance is determined to be necessary, and a step in which the assistance is determined based on the risk level and the assistance is provided to the user; the first sensor is incorporated into an eyewear device; the first sensor measures a parameter associated with the user; the analysis and the determination of the context use the first data; the assistance is in the form of feedback; and the risk level relates to the context, the state, and the first data.”

The above amendment is based on paragraphs [0095]–[0097] and Figure 23 of the Specification of the present application.

(13) The old Claim 16 is amended as follows to form the new Claim 14. Namely, the new Claim 14 has been amended to the statement that “the computer-readable storage medium according to Claim 13, wherein the context includes one or more of a body posture of the user, an activity performed by the user, and an environment in which the user is located.”

The above amendment is based on paragraph [0089] of the Specification of the present application.

(14) The citation relationship to the old Claim 17 has been amended to the new Claim 15. The new Claim 15 cites the new Claim 13.

(15) The old Claim 18 has been deleted. The citation relationship to the old Claim 19 has been amended to the new Claim 16. The new Claim 16 cites the new Claim 13. In addition, regarding the new Claim 16, “the determination uses the first data and the second data” before the amendment has been amended to “the determination of the context uses the first data and the second data.”

The above amendment is a description change made with the purpose of clarifying the Scope of Patent Claims.

(16) The old Claim 20 is amended as follows to form the new Claim 17. Namely, the new Claim 17 has been amended to read, “A system for providing assistance to a user via an eyewear device through execution by a data processing system, wherein: the system comprises an audio interface having a microphone and a speaker for receiving user commands and providing the assistance to the user, a sensor data input for receiving sensor data, a processor in electrical communication with the audio interface and the sensor data, and a computer program for processing the sensor data; the computer program and the processor cause the data processing system to perform steps, the steps comprising a step in which first data is received from a first sensor, a step in which a context of the user is determined, a step in which a state of the user is analyzed, a step in which it is determined whether the assistance is necessary based on the state and the context, a step in which a risk level is determined if the assistance is determined to be necessary, and a step in which the assistance is determined based on the risk level and the assistance is provided to the user; the first sensor is incorporated into an eyewear device; the first sensor measures a parameter associated with the user; the analysis and the determination of the context use the first data; the assistance is in the form of feedback; and the risk level relates to the context, the state, and the first data.” The above amendment is based on paragraphs [0095]–[0097] and Figure 23 of the Specification of the present application.

(17) The citation relationship to the old Claim 21 has been amended to the new Claim 18. The new Claim 18 cites the new Claim 17.

(18) The citation relationship to the old Claim 22 is amended to form the new Claim 19. The new Claim 19 is dependent on the new Claim 18.

(19) The citation relationship to the old Claim 23 has been amended to the new Claim 20. The new Claim 20 cites the new Claim 18.

(20) The citation relationship to the old Claim 24 has been amended to the new Claim 21. The new Claim 21 cites the new Claim 20.

(21) The citation relationship to the old Claim 25 has been amended to the new Claim 22. The new Claim 22 cites the new Claim 17.

In addition, regarding the new Claim 22, “the determination uses the first data and the second data” before the

amendment has been amended to “ the determination of the context uses the first data and the second data.”

The above amendment is a description change made with the purpose of clarifying the Scope of Patent Claims.

(22) The citation relationship to the old Claim 26 has been amended to the new Claim 23. The new Claim 23 cites the new Claim 17.

As described above, this amendment complies with the provisions of Patent Act Article 17-2 (3).

3. Reason 1 (Novelty) and Reason 2 (Inventive Step)

3-1. Invention according to new Claim 1

(1) Description of the invention as in the new Claim 1

When the invention as in the new Claim 1 is compared with the invention described in Cited Document 1, the invention according to the new Claim 1 has at least the following differences.

The invention according to the new Claim 1 has the following features: “a step in which a risk level is determined if the assistance is determined to be necessary, and a step in which the assistance is determined based on the risk level” and “the risk level relates to the context, the state, and the first data.”

(2) Comparison with Cited Document 1 and consideration

Paragraph [0041] of Cited Document 1 states, “The determination unit 103 determines the user emotion based on the user situation recognized by the situation recognition unit 101 and the user behavior recognized by the behavior recognition unit 102. “Emotion” may be expressed by a basic emotion such as joy or anger, but here, positive/negative (hereinafter also referred to as P/N) can be used as an example.” Paragraph [0061] of Cited Document 1 states, “The information processing device 10a determines feedback by referring to the feedback database 142 based on the P/N determination result,” and paragraph [0045] of Cited Document 1 states, “As shown in Figure 4, the feedback database 142 stores information (feedback type, feedback content, and priority) related to feedback content previously associated with user IDs, situations, actions, and (emotion) P/N.” Paragraph [0046] of Cited Document 1 states, “For positive actions, feedback of content that is pleasant to the user is provided to strengthen the action, and for negative actions, feedback of content that is unpleasant to the user is performed to suppress the action. Only one piece of feedback can be provided, or a plurality of pieces of feedback can be provided. When selecting from a plurality of feedback candidates, the determination can be made according to the priority shown in Figure 4.”

That is to say, in Cited Document 1, the feedback is determined based on the P/N determination result and the

type of feedback, the content of the feedback, and the priority stored in the feedback database 142. User emotions in Cited Document 1 include negative and positive emotions and are not related to risk level. In addition, the priority in Cited Document 1 is used to select the feedback to be provided from a plurality of feedback candidates and is not related to risk level. Moreover, the type and content of the feedback in Cited Document 1 also does not relate to risk level. Therefore, the feedback in Cited Document 1 is not related to risk level. Moreover, in Cited Document 1, the feedback determination does not use the data from the sensor.

In contrast, in the present application, the assistance provided to the user is determined based on the risk level, and this risk level is related to the context of the user, the state of the user, and the first data from the first sensor. In this way, the invention according to the new Claim 1 can provide various levels of assistance to the user of the eyewear device based on the context and state of the user and data from the sensor, and the assistance provided is more appropriate.

Therefore, the method of determining the feedback of Cited Document 1 is different from the method of determining the assistance of the present application, and Cited Document 1 neither discloses nor suggests the points of difference of “a step in which a risk level is determined if the assistance is determined to be necessary, and a step in which the assistance is determined based on the risk level” and “the risk level relates to the context, the state, and the first data.”

(3) Summary

As shown above, Cited Document 1 does not disclose or suggest the characteristic features of the present invention. Therefore, the invention according to the new Claim 1 is novel and involves an inventive step, regardless of the existence of Cited Document 1.

3-2. The inventions as in the new Claims 2–23

The inventions as in the new Claims 2–12, which cite the new Claim 1, also are novel and involve an inventive step for the same reason.

The new Claims 13 and 17 have the same characteristic features as the new Claim 1, and the invention as in the new Claim 13, the invention as in the new Claims 14–16, which cite the new Claim 13, and the inventions as in the new Claim 17 and the new Claims 18–23, which are dependent on the new Claim 17, are novel and involve an inventive step for the same reason.

4. Reason 3 (Support Requirement)

(1) By this amendment, in the new Claim 2, the phrase “a negative state is associated with the state” from before the amendment has been deleted. In the new Claim 4, “an active state is associated with the state” from before the amendment has been deleted.

(2) By this amendment, in the new Claim 3, the phrase “is generated externally to the eyewear device, or is communicated from a person” from before the amendment is changed to “ the feedback is generated by a device located externally to the eyewear device, the device being in electrical communication with the eyewear device.”

Therefore, the applicant considers Reason 3 to be resolved.

5. Reason 4 (Clarity)

(1) By this amendment, in the new Claim 2, the phrase “the negative state is associated with the state” from before the amendment has been deleted.

In the new Claim 4, “an active state is associated with the state” from before the amendment has been deleted.

(2) By this amendment, in the new Claims 10 and 14, the phrase “a first element of the context is a body posture of the user, a second element of the context is an activity being performed by the user, and a third element of the context is an environment of the user” from before the amendment has been amended to “ the context comprises one or more of a body posture of the user, an activity being performed by the user, and an environment in which the user is located.”

Therefore, the applicant considers Reason 4 to be resolved.

6. Conclusion

As explained above, we are confident that this application sufficiently satisfies the requirements for patentability, and we would therefore like to request that the application be re-examined and an examiner’s decision to grant a patent be issued.



Inquiry of History Information

Decision to Grant a Patent (Patent Application 2021-539888)

Decision to Grant a Patent

Patent application number: Japanese Patent Application No. 2021-539888

Proposed: November 8, 2022

Patent Office Examiner: Kentaro Takase 3865 5E00

Title of the invention: EYEWEAR SYSTEM, APPARATUS, AND METHOD FOR PROVIDING
ASSISTANCE TO A USER

Number of claims: 23

Applicant: Solos Technology Limited

Agent: TRY International Patent Office

This application is to be granted a patent, since no reason for refusal has been found.

Chief Examiner/Deputy	Examiner	Assistant Examiner	Classification Assessor
Takao Tsubata	Takeshi Takase		Ryutaro Iwase
9747	3865		3790

- Patent type: Normal
- Reference document: Yes
- Application of Patent Act Article 30: No
- Change in the title of the invention: No

- Deposit of Microorganisms

References

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G06F 3/01 510,
H04N 5/232 290,
G06F 3/16 600

- Fields searched (IPC, database name)

G06F 3/01
H04N 5/232
G06F 3/16

- Reference patent documents

International Publication WO 2019/207896 (WO, A1)

- Reference books and journals

