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(54) **EYE CONTACT-BASED INFORMATION TRANSFER**

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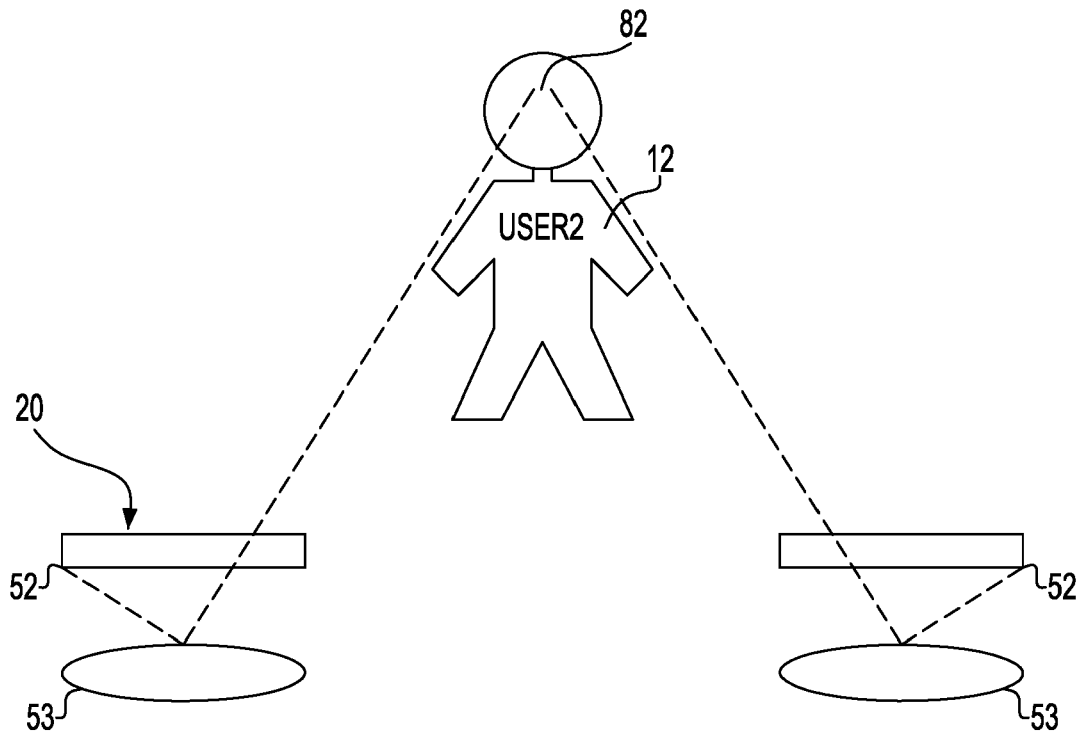(22) Filed: **Nov. 16, 2018**

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(57) **ABSTRACT**

A method, computer program product and system for eye contact-based information transfer. Communication is established by a computer device between a first head mounted device worn by a first user and a second head mounted device worn by a second user. Gaze tracking establishes through gaze tracking of the first head mounted device and the second head mounted device that the first head mounted device and the second head mounted device have made mutual eye contact. Responsive to an input to the first head mounted device made while the established mutual eye contact exists, transferring, by the computer device, a file from the first head mounted device to the second head mounted device.
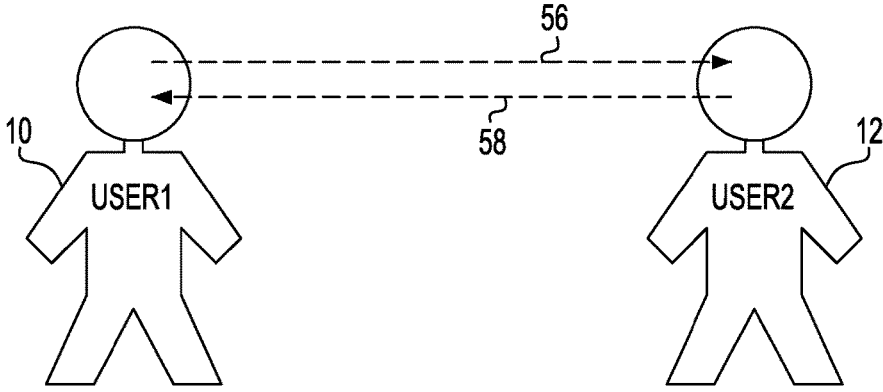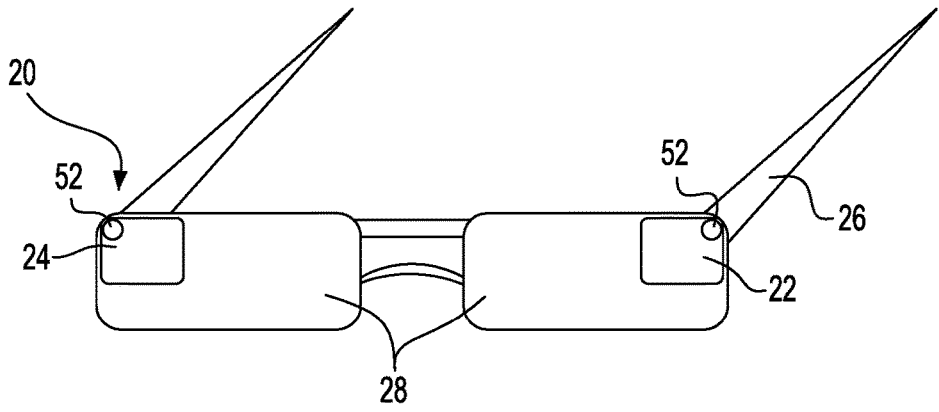
FIG. 1

FIG. 2

30

22,24

VIDEO
DISPLAYS

52

CAMERAS

CPU
~32

MEMORY
~34

STORAGE
~36

GPS
~38

ANGULAR
POSITION SENSOR
~40

COMMUNICATION
CAPABILITY
~42

44

PROGRAMS

EYE TRACKING
~46

DISTANCE
CALCULATION
~48

GPS
CALCULATION
~50

FIG. 3

82

12

USER2

20

52

52

53

53

FIG. 4

62

64

56

12

58

USER2

10

USER 1

60

FIG. 5

FIG. 6A

FIG. 6B
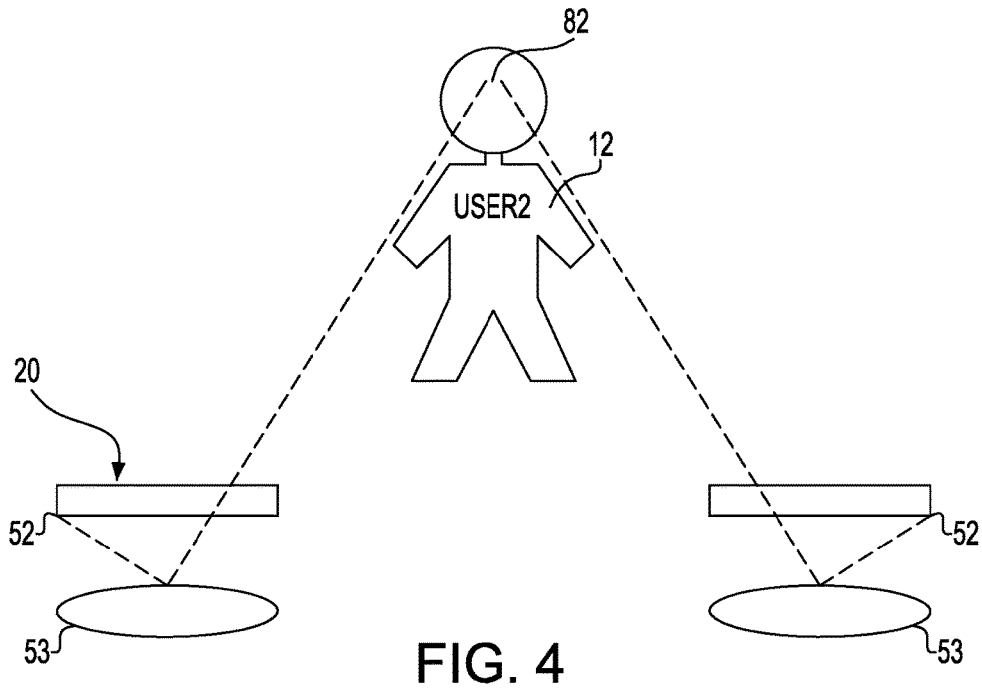
FIG. 7A

FIG. 7B

EYE CONTACT-BASED INFORMATION TRANSFER

BACKGROUND

[0001] The present invention relates to the transfer of information between users and, more particularly, relates to a first user sharing information with a second user which may include transferring information when the first and second users make eye contact as facilitated by head mounted computer devices worn by the first and second users.

[0002] Head mounted devices for viewing objects are well known. One such head mounted device is Google Glass in which a pair of glasses has a video display and computer device in the frame of the glasses. The head mounted device may be used for a number of functions including taking pictures, sending images, and communicating with others by Wi-Fi or cellular technology.

BRIEF SUMMARY

[0003] The various advantages and purposes of the exemplary embodiments as described above and hereafter are achieved by providing, according to a first aspect of the exemplary embodiments, a method for eye contact-based information transfer which includes: establishing communication by a computer device between a first head mounted device worn by a first user and a second head mounted device worn by a second user wherein the first head mounted device worn by the first user and the second head mounted device worn by the second user are in first and second locations, the first head mounted device being at the first location with a first video display, the second head mounted device being at the second location with a second video display; determining, by a computer device and based on gaze tracking of the first head mounted device and the second head mounted device, that mutual eye contact is established between the first head mounted device and the second head mounted device, wherein determining that mutual eye contact is established comprises determining through gaze tracking eye contact between the first head mounted device at the first location and an image of the second user in the first video display and determining through gaze tracking eye contact between the second head mounted device at the second location and an image of the first user in the second video display such that mutual eye contact between the first head mounted device and the second head mounted device is only through the images in the first and second video displays; and responsive to an input to the first head mounted device made while the established mutual eye contact exists, transferring, by the computer device, a file from the first head mounted device to the second head mounted device.

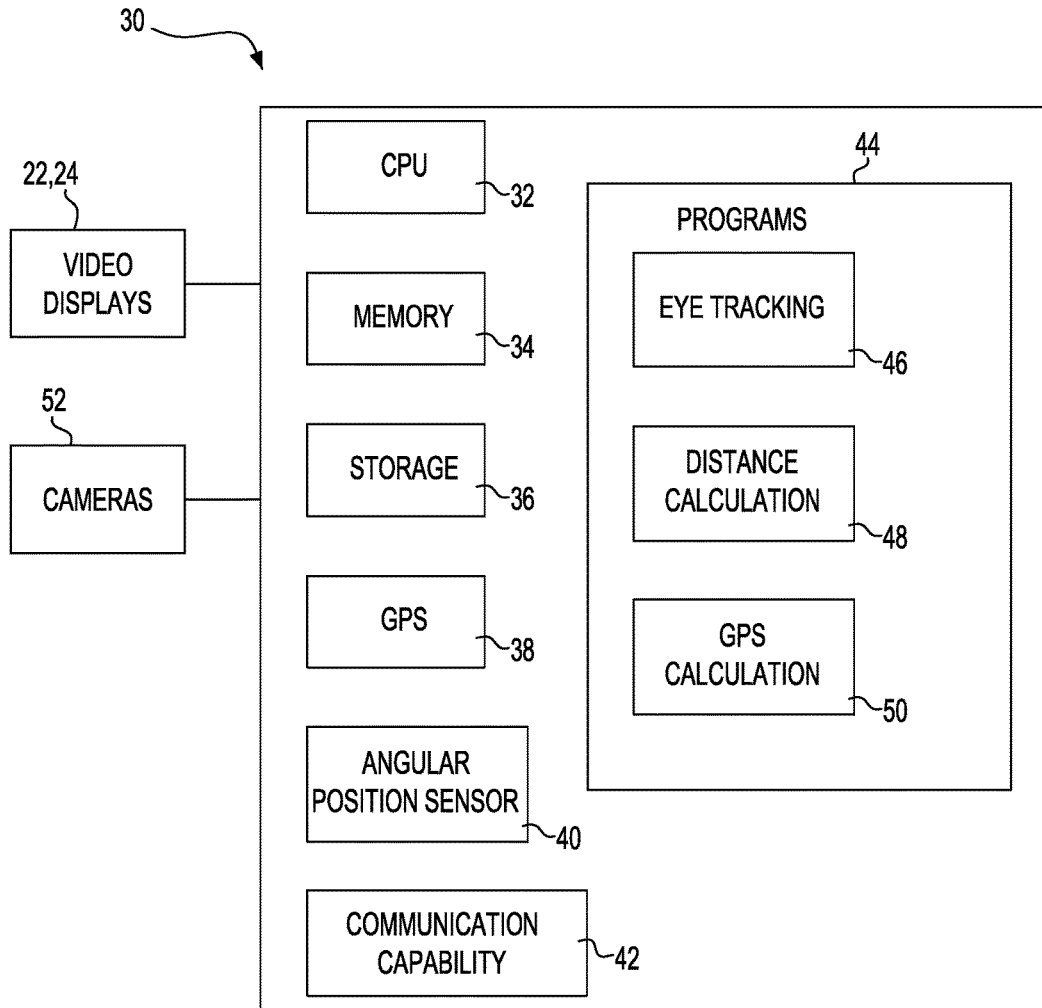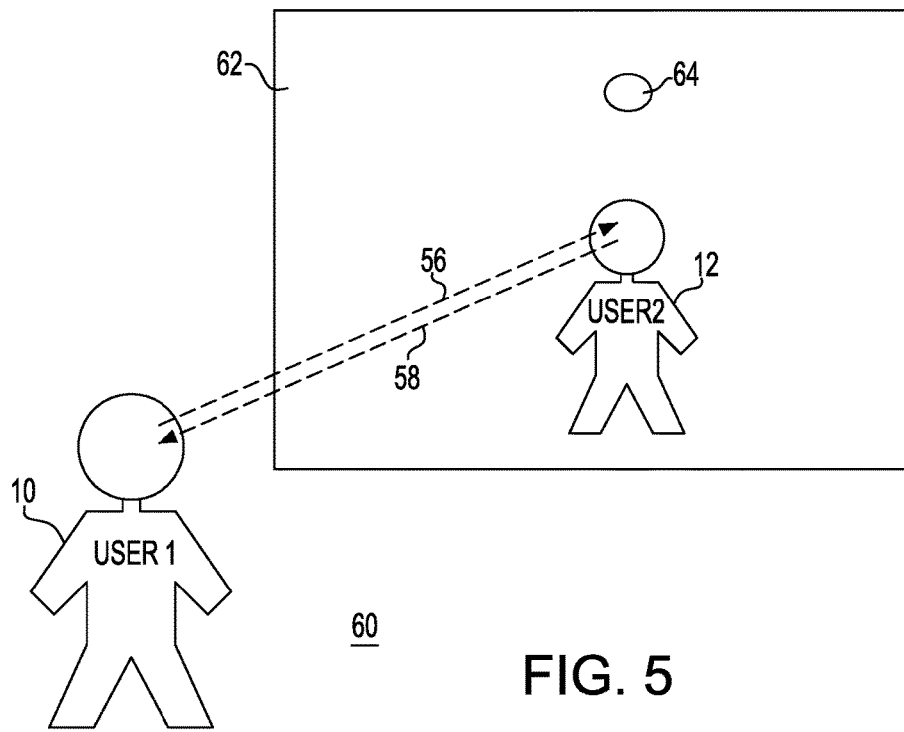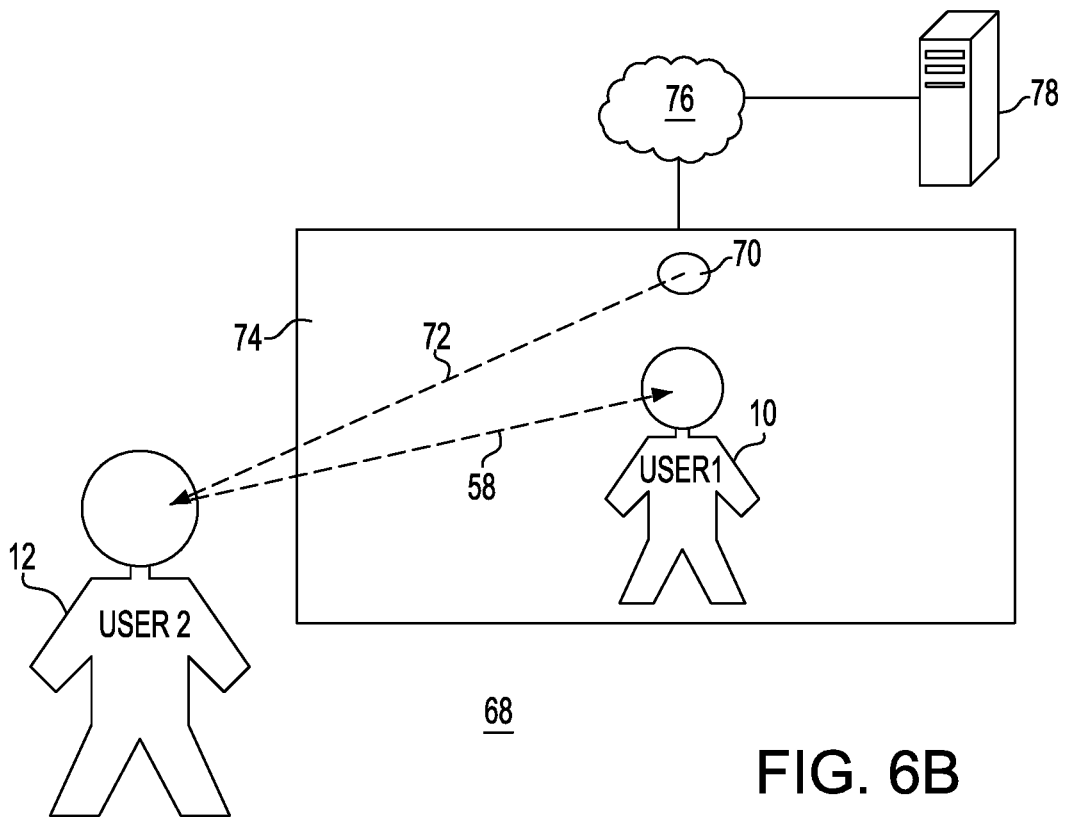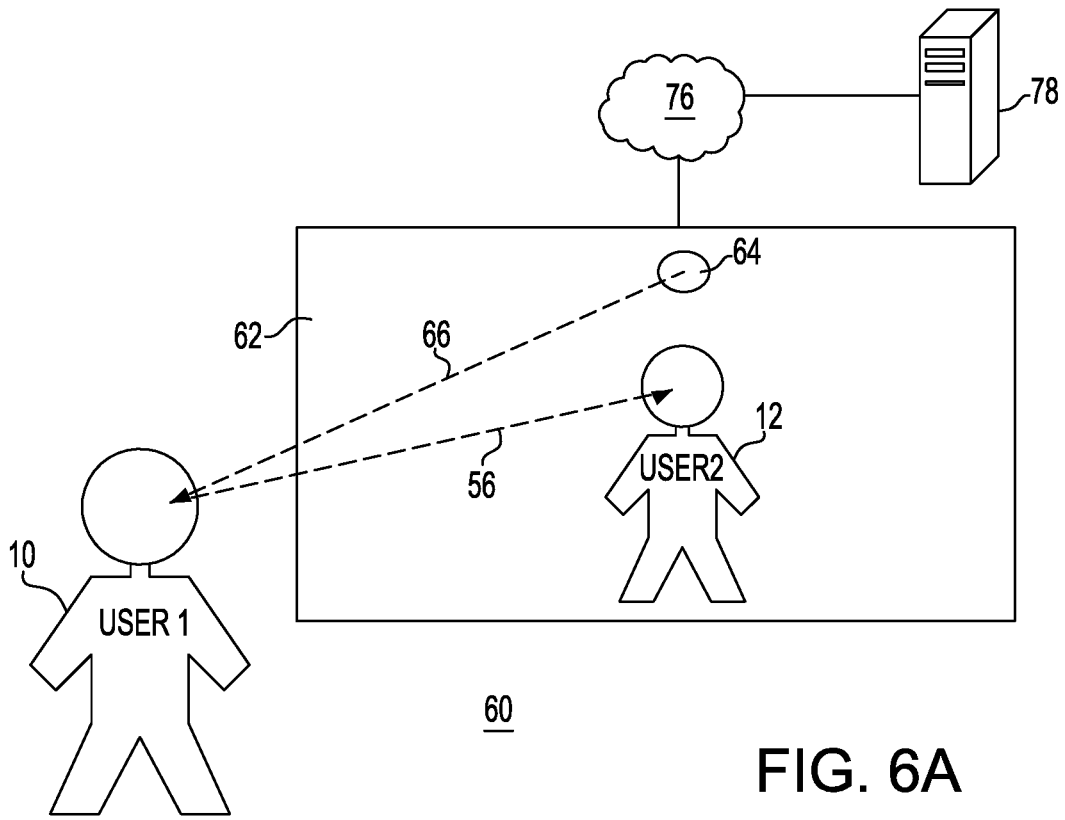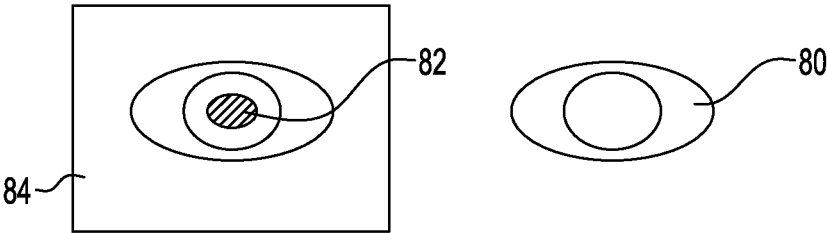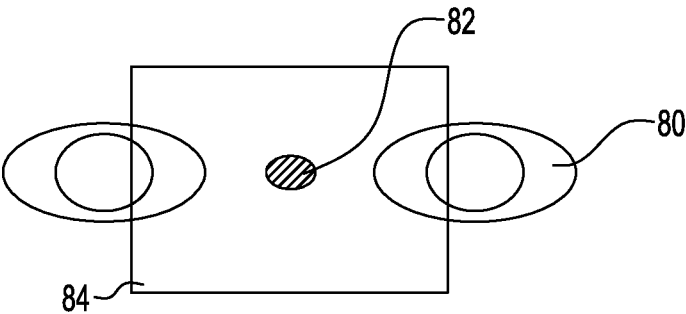[0004] According to a second aspect of the exemplary embodiments, there is provided a computer program product for eye contact-based information transfer, the computer program product including: a computer readable storage medium having program instructions embodied therewith, the program instructions executable by a processor to cause the processor to perform a method comprising: establishing communication by a computer device between a first head mounted device worn by a first user and a second head mounted device worn by a second user wherein the first head mounted device worn by the first user and the second head

mounted device worn by the second user are in first and second locations, the first head mounted device being at the first location with a first video display, the second head mounted device being at the second location with a second video display; determining, by a computer device and based on gaze tracking of the first head mounted device and the second head mounted device, that mutual eye contact is established between the first head mounted device and the second head mounted device, wherein determining that mutual eye contact is established comprises determining through gaze tracking eye contact between the first head mounted device at the first location and an image of the second user in the first video display and determining through gaze tracking eye contact between the second head mounted device at the second location and an image of the first user in the second video display such that mutual eye contact between the first head mounted device and the second head mounted device is only through the images in the first and second video displays; and responsive to an input to the first head mounted device made while the established mutual eye contact exists, transferring, by the computer device, a file from the first head mounted device to the second head mounted device.

[0005] According to a third aspect of the exemplary embodiments, there is provided a system for eye contact-based information transfer including: a head mounted device having a video display and a computer device; the computer device having a computer readable storage medium having stored thereon: first program instructions executable by the computer device in the head mounted device to cause the computer device to establish communication between the head mounted device worn by a first user and a second head mounted device worn by a second user wherein the head mounted device worn by the first user and the second head mounted device worn by the second user are in first and second locations, the head mounted device being at the first location with the video display, the second head mounted device being at the second location with a second video display; second program instructions executable by the computer device to determine, based on gaze tracking of the head mounted device and the second head mounted device, that mutual eye contact is established between the head mounted device and the second head mounted device, wherein determine that mutual eye contact is established comprises determine through gaze tracking eye contact between the head mounted device at the first location and an image of the second user in the video display such that mutual eye contact between the first head mounted device and the second head mounted device is only through the image in the video display; and responsive to an input to the first head mounted device made while the established mutual eye contact exists, third program instructions executable by the computer device to transfer a file from the head mounted device to the second head mounted device.

BRIEF DESCRIPTION OF SEVERAL VIEWS OF THE DRAWINGS

[0006] The features of the exemplary embodiments believed to be novel and the elements characteristic of the exemplary embodiments are set forth with particularity in the appended claims. The Figures are for illustration purposes only and are not drawn to scale. The exemplary embodiments, both as to organization and method of operation, may best be understood by reference to the detailed

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description which follows taken in conjunction with the accompanying drawings in which:

[0007]   FIG. 1 is an illustration of two users who are in proximity to one another.

[0008]   FIG. 2 is an illustration of a head mounted device that may be used in the exemplary embodiments.

[0009]   FIG. 3 is a block diagram of a computer device that may be present in the head mounted device of FIG. 2.

[0010]   FIG. 4 is an illustration of one method of eye tracking that may be used in the exemplary embodiments.

[0011]   FIG. 5 is an illustration of eye contact between two users who are remotely located from each other but visually connected through a monitor.

[0012]   FIGS. 6A and 6B illustrate a process for determining eye contact between two users who are remotely located from each other but visually connected through a monitor.

[0013]   FIGS. 7A and 7B illustrate the focus and field of view of a user focusing on another user.

DETAILED DESCRIPTION

[0014]   Referring to the Figures in more detail, and particularly referring to FIG. 1, there is illustrated a pair of users, user1 10 and user2 12, who are in proximity to one another. By "proximity", it is meant that the pair of users are sufficiently close together that eye contact can be made and seen. Proximity may include standing next to one another as well as being several tens of yards apart. Proximity may also include being remotely separated but visually connected such as by video conferencing. It would be desirable to have a way for user1 10 to share with user2 12 (and vice-versa) a file that user1 10 may have in his/her possession.

[0015]   The present inventor proposes exemplary embodiments in which user1 10 and user2 12 may each wear a head mounted device that may determine when eye contact between user1 10 and user2 12 is made. The head mounted device may be any head mounted device such as Google Glass, Looxcie, iOptik or Goldeni, just to name a few.

[0016]   Referring now to FIG. 2, there is shown an illustration of a head mounted device 20 that may be used in the exemplary embodiments. It should be understood that head mounted device 20 shown in FIG. 2 is only meant for purposes of illustration and not limitation and that other head mounted devices may serve the purposes of the exemplary embodiments provided these other head mounted devices have the functions and capabilities described herein.

[0017]   Head mounted device 20 may include a video display 22 for the left eye and a video display 24 for the right eye. Head mounted device 20 may further include one or more cameras 52. Included within the frame 26 of the head mounted device 20 may be one or more computer devices (not shown in FIG. 2). Head mounted device 20 may or may not have lenses 28 which may or may not be prescription lenses.

[0018]   Referring now to FIG. 3, there is shown a block diagram of a computer device 30 that may be present in head mounted device 20. Computer device 30 may include a central processing unit (CPU) 32, memory 34 and storage 36, such as solid state storage. While storage 36 is shown as within computer device 30, storage 36 may alternatively be cloud storage (i.e., storage on a remote server which may be connected to the head mounted device 20 by a network such as the internet via cellular or Wi-Fi capability in the head mounted device 20.). In addition, the computer device 30 may have a Global Positioning System (GPS) 38 and an angular position sensor 40, such as a digital compass, for determining the angular position of the head mounted device 20. It is preferred that the head mounted device 20 have communication capability, indicated by box 42, to communicate with other head mounted devices. The communication capability may include Wi-Fi, Bluetooth, near field communication (NFC), cellular and even satellite capability.

[0019]   The computer device 30 may, in addition, have certain applications or programs 44 resident in the computer device 30. These applications or programs 44 may include eye tracking 46 of the user of the head mounted device 20, distance calculation 48 to a target object and GPS calculation 50 to calculate, for example, the distance and bearing between two GPS locations or determining the GPS location of the target object. It should be understood that it is within the scope of the exemplary embodiments for these applications or programs 44 to be accessible remotely by the internet or in cloud storage.

[0020]   The computer device 30 may be connected to video screens 22, 24 shown in FIG. 2. In addition, the computer device 30 may be connected to one or more cameras 52 that may be present in the head mounted device 20. The cameras 52 may be facing toward user1 10 to catch eye movements of user1 10 (described hereafter) or facing away from user1 10 or both.

[0021]   Referring back to FIG. 1, in one exemplary embodiment, a user1 10 may focus towards user2 12. The focus 56 of user 1 10 may be obtained by eye tracking of user1 10, in conjunction with the compass bearing of user1's head. The angular position of the head of user1 10 with respect to user2 12 may be registered by the angular position sensor 40 in computer device 30. In addition, the gaze of user1 10 toward user2 12 may be obtained through eye tracking of the user1 10.

[0022]   In order to determine the focus of user1 10 towards user2 12, it may be necessary to obtain both the angular position of the head of user1 10 to user2 12 as well as the gaze of user1 10 to user2 12. That is, both the direction of looking (i.e., angular position of the head of the user) as well as the person looked at (i.e., gaze of user) may be necessary.

[0023]   Eye tracking is a well known technique for determining the point at which a user may be focusing on. One method of eye tracking is illustrated in FIG. 4 where cameras 52 in the head mounted device 20 may register eye movements 53 of the user1 10 as the user1 10 focuses on user2 12. The focus of user1 10 on user2 12 is indicated at 82. These eye movements 53 may be converted to a user's gaze by eye tracking application 46 in computer device 30.

[0024]   Referring now to FIGS. 7A and 7B, there is a fuller illustration of the focus 82 of user1 10 on user2 12. As shown in FIG. 7A, user1 10 is focusing directly on user2's eye 80. However, it is not necessary that user1 10 and user2 12 make eye contact such that user1's eye (not shown), as determined by eye tracking, is focusing directly on user2's eye 80 as shown in FIG. 7A. This is because the focus of user1 10 as indicated by 82 is actually smaller than user1's field of view 84. The farther that user1 10 is away from user2 12, the larger will be user1's field of view 84. As long as user2's eye 80 is within user1's field of view 84, then user1 10 will be considered to have made eye contact with user2 12. This is illustrated in FIG. 7B, where the focus 82 of user1 10 is between the eyes 80 of user2 12 but user1's field of view 84 overlaps with at least one eye 80 of user2 12.

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[0025] In a similar manner, the focus of user2 **12** towards user1 **10** may be determined by user2's head mounted device **20**.

[0026] However, before user1 **10** and user2 **12** can independently determine if they are focusing on each other, there must be some communication established between user1 **10** and user2 **12**. User1 **10** and user2 **12** may have a pre-established relationship, such as working for the same company or being friends, in which case their respective head mounted devices **20** may have been configured to communicate through communication capability **42** with each other when they are sensed to be in proximity. Thus, when user1 **10** and user2 **12** are located in the same proximity, user1's head mounted device **20** may sense user2's head mounted device **20** and similarly user2's head mounted device **20** may sense user1's head mounted device **20**. Once the respective user's head mounted devices **20** are each sensed, communication through communication capability **42** may be established.

[0027] Communication/sensing may be established by several different means. If user1 **10** and user2 **12** are close by, communication may be established by NFC or Bluetooth. As presently known, Bluetooth devices must be paired before communication can begin so the use of Bluetooth would require an extra step of pairing before communication may begin. However, once paired, the respective head mounted devices **20** may be automatically capable of sensing the presence of the other head mounted device **20** followed by communication once they are in Bluetooth range. User1 **10** and user2 may also sense and communicate through WiFi, either directly or through the internet.

[0028] After communication between user1 **10** and user2 **12** has been established, user1 **10** may focus on user2 **12** and attempt to catch the eye of user2 **12**. If user1 **10** and user2 **12** are focused on each other as determined by their respective head mounted devices **20**, user1 **10** may transmit a file to user2 **12**. That is, user1's head mounted device **20** indicates to user1 **10** that user1 **10** is focusing on user2 **12**. Similarly, user2's head mounted device **20** indicates to user2 **12** that user2 **12** is focusing on user1 **10**.

[0029] In one exemplary embodiment, after eye contact has been made between user1 **10** and user2 **12**, user1 **10** may transmit a file to user2 **12**. In another exemplary embodiment, prior to the transmitting of the file, user1 **10** may indicate to user2 **12** that user1 **10** has a file that user1 **10** wishes to transfer to user2 **12**. User1 **10** may indicate this transfer by a text message, which may occur through the head mounted devices **20** or by user1 **10** using his cell phone to transmit a text message to user2 **12**, which user2 **12** may receive by user2's head mounted device **20** or by user2's cell phone. User1 **10** may through an input menu in user1's head mounted device **20** or by a head gesture understood by user1's head mounted device **20** cause the head mounted device **20** to transmit the file to user2's head mounted device **20**.

[0030] The file that user1 **10** transmits may be any digital file such as a document, picture, video, song, etc. The actual means of transmission of the file may be by any means of transmission including but not limited to WiFi, text, Bluetooth, cellular, internet, etc.

[0031] In one exemplary embodiment, the file is transferred only while user1 **10** and user2 are focused on one another. In another exemplary embodiment, user1 **10** and user2 **12** may only be focused on one another when file

transfer begins and then after file transfer begins, user1 **10** and user2 **12** may focus elsewhere.

[0032] In a further exemplary embodiment, user1 **10** and user2 **12** may be in different locations but still visually connected which will still allow the transfer of files through eye contact. Referring now to FIG. **5**, user1 **10** may be located in a location **60** in which user2 **12** is not located. However, user2 **12** is visually connected to user1 **10** through monitor **62**. In a similar manner, user2 **12** would be located in a different location and user1 **10** would be visually connected to user2 **12** through a monitor at user2's location.

[0033] Referring now to FIGS. **6A** and **6B**, according to the exemplary embodiments, it may be determined whether the focus **56** of user1 **10** matches the focus **58** of user2 **12** to indicate that they have made eye contact. Referring first to FIG. **6A**, user1 **10** is focusing **56** on an image of user2 **12** displayed on monitor **62**. Monitor **62** has a camera **64** which observes **66** user1 **10**. Monitor **62** and camera **64** may be connected to a computing device **78**. The connection to the computing device **78** may be wired or more likely, the connection may be through the internet **76**. There may be a program in computing device **78** which through image recognition knows where the eyes of user2 **12** are located on monitor **62** as viewed by user1 **10**. Camera **64** monitors user1's focus **56** and calculates by computing device **78** if user1 **10** has made eye contact with the eyes of the image of user2 **12** displayed on monitor **62**.

[0034] Referring now to FIG. **6B**, a similar procedure is followed to see if user2 **12** has made eye contact with user1 **10**. That is, user2 **12** is focusing **58** on an image of user1 **10** displayed on monitor **74**. Monitor **74** has a camera **70** which observes **72** user2 **12**. Monitor **74** and camera **70** may be connected to the computing device **78**. The connection to the computing device **78** may be wired or more likely, the connection may be through the internet **76**. There may be a program in computing device **78** which through image recognition knows where the eyes of user1 **10** are located on monitor **74** as viewed by user2 **12**. Camera **70** monitors user2's focus **58** and calculates by computing device **78** if user2 **12** has made eye contact with the eyes of the image of user1 **10** displayed on monitor **74**.

[0035] When computing device **78** indicates that mutual eye contact between user1 **10** and user2 **12** has been made, communication may be established between user1 **10** and user2 **12** by one of the means described previously. After the establishment of eye contact and communication between user1 **10** and user2 **12**, file transfer between user 1 **10** and user2 **12** may commence as described previously.

[0036] The exemplary embodiments may also include a system for eye contact-based information transfer. The system may include a head mounted device having a video display and a computer device. The computer device may have a computer readable storage medium, the computer readable storage medium having program code embodied therewith, the computer readable program code may performs the method as described above.

[0037] The present invention may be a system, a method, and/or a computer program product. The computer program product may include a computer readable storage medium (or media) having computer readable program instructions thereon for causing a processor to carry out aspects of the present invention.

[0038] The computer readable storage medium can be a tangible device that can retain and store instructions for use

by an instruction execution device. The computer readable storage medium may be, for example, but is not limited to, an electronic storage device, a magnetic storage device, an optical storage device, an electromagnetic storage device, a semiconductor storage device, or any suitable combination of the foregoing. A non-exhaustive list of more specific examples of the computer readable storage medium includes the following: a portable computer diskette, a hard disk, a random access memory (RAM), a read-only memory (ROM), an erasable programmable read-only memory (EPROM or Flash memory), a static random access memory (SRAM), a portable compact disc read-only memory (CD-ROM), a digital versatile disk (DVD), a memory stick, a floppy disk, a mechanically encoded device such as punch-cards or raised structures in a groove having instructions recorded thereon, and any suitable combination of the foregoing. A computer readable storage medium, as used herein, is not to be construed as being transitory signals per se, such as radio waves or other freely propagating electromagnetic waves, electromagnetic waves propagating through a waveguide or other transmission media (e.g., light pulses passing through a fiber-optic cable), or electrical signals transmitted through a wire.

[0039] Computer readable program instructions described herein can be downloaded to respective computing/processing devices from a computer readable storage medium or to an external computer or external storage device via a network, for example, the Internet, a local area network, a wide area network and/or a wireless network. The network may comprise copper transmission cables, optical transmission fibers, wireless transmission, routers, firewalls, switches, gateway computers and/or edge servers. A network adapter card or network interface in each computing/processing device receives computer readable program instructions from the network and forwards the computer readable program instructions for storage in a computer readable storage medium within the respective computing/processing device.

[0040] Computer readable program instructions for carrying out operations of the present invention may be assembler instructions, instruction-set-architecture (ISA) instructions, machine instructions, machine dependent instructions, microcode, firmware instructions, state-setting data, or either source code or object code written in any combination of one or more programming languages, including an object oriented programming language such as Smalltalk, C++ or the like, and conventional procedural programming languages, such as the "C" programming language or similar programming languages. The computer readable program instructions may execute entirely on the user's computer, partly on the user's computer, as a stand-alone software package, partly on the user's computer and partly on a remote computer or entirely on the remote computer or server. In the latter scenario, the remote computer may be connected to the user's computer through any type of network, including a local area network (LAN) or a wide area network (WAN), or the connection may be made to an external computer (for example, through the Internet using an Internet Service Provider). In some embodiments, electronic circuitry including, for example, programmable logic circuitry, field-programmable gate arrays (FPGA), or programmable logic arrays (PLA) may execute the computer readable program instructions by utilizing state information

of the computer readable program instructions to personalize the electronic circuitry, in order to perform aspects of the present invention.

[0041] Aspects of the present invention are described herein with reference to flowchart illustrations and/or block diagrams of methods, apparatus (systems), and computer program products according to embodiments of the invention. It will be understood that each block of the flowchart illustrations and/or block diagrams, and combinations of blocks in the flowchart illustrations and/or block diagrams, can be implemented by computer readable program instructions.

[0042] These computer readable program instructions may be provided to a processor of a general purpose computer, special purpose computer, or other programmable data processing apparatus to produce a machine, such that the instructions, which execute via the processor of the computer or other programmable data processing apparatus, create means for implementing the functions/acts specified in the flowchart and/or block diagram block or blocks. These computer readable program instructions may also be stored in a computer readable storage medium that can direct a computer, a programmable data processing apparatus, and/or other devices to function in a particular manner, such that the computer readable storage medium having instructions stored therein comprises an article of manufacture including instructions which implement aspects of the function/act specified in the flowchart and/or block diagram block or blocks.

[0043] The computer readable program instructions may also be loaded onto a computer, other programmable data processing apparatus, or other device to cause a series of operational steps to be performed on the computer, other programmable apparatus or other device to produce a computer implemented process, such that the instructions which execute on the computer, other programmable apparatus, or other device implement the functions/acts specified in the flowchart and/or block diagram block or blocks.

[0044] The flowchart and block diagrams in the Figures illustrate the architecture, functionality, and operation of possible implementations of systems, methods, and computer program products according to various embodiments of the present invention. In this regard, each block in the flowchart or block diagrams may represent a module, segment, or portion of instructions, which comprises one or more executable instructions for implementing the specified logical function(s). In some alternative implementations, the functions noted in the block may occur out of the order noted in the figures. For example, two blocks shown in succession may, in fact, be executed substantially concurrently, or the blocks may sometimes be executed in the reverse order, depending upon the functionality involved. It will also be noted that each block of the block diagrams and/or flowchart illustration, and combinations of blocks in the block diagrams and/or flowchart illustration, can be implemented by special purpose hardware-based systems that perform the specified functions or acts or carry out combinations of special purpose hardware and computer instructions.

[0045] It will be apparent to those skilled in the art having regard to this disclosure that other modifications of the exemplary embodiments beyond those embodiments specifically described here may be made without departing from the spirit of the invention. Accordingly, such modifications

are considered within the scope of the invention as limited solely by the appended claims.

What is claimed is:

1. A method for eye contact-based information transfer comprising:

establishing communication by a computer device between a first head mounted device worn by a first user and a second head mounted device worn by a second user wherein the first head mounted device worn by the first user and the second head mounted device worn by the second user are in first and second locations, the first head mounted device being at the first location with a first video display, the second head mounted device being at the second location with a second video display;

determining, by a computer device and based on gaze tracking of the first head mounted device and the second head mounted device, that mutual eye contact is established between the first head mounted device and the second head mounted device, wherein determining that mutual eye contact is established comprises determining through gaze tracking eye contact between the first head mounted device at the first location and an image of the second user in the first video display and determining through gaze tracking eye contact between the second head mounted device at the second location and an image of the first user in the second video display such that mutual eye contact between the first head mounted device and the second head mounted device is only through the images in the first and second video displays; and

responsive to an input to the first head mounted device made while the established mutual eye contact exists, transferring, by the computer device, a file from the first head mounted device to the second head mounted device.

2. The method of claim 1 wherein transferring the file only while mutual eye contact between the first head mounted device and the second head mounted device is maintained.

3. The method of claim 1 wherein transferring the file only after mutual eye contact between the first head mounted device and the second head mounted device is established and avoiding maintaining eye contact after transferring the file is initiated.

4. The method of claim 1 further comprising preconfiguring the first head mounted device and the second head mounted device so that the first head mounted device automatically recognizes the second head mounted device for establishing communication between the first head mounted device and the second head mounted device and the second head mounted device automatically recognizes the first head mounted device for establishing communication between the first head mounted device and the second head mounted device.

5. The method of claim 4 wherein the first head mounted device recognizes the second head mounted device and the second head mounted recognizes the first head mounted device by Bluetooth.

6. The method of claim 4 wherein the first head mounted device recognizes the second head mounted device and the second head mounted recognizes the first head mounted device by near field communication.

7. The method of claim 4 wherein the first head mounted device recognizes the second head mounted device and the second head mounted recognizes the first head mounted device by WiFi.

8. The method of claim 1 wherein determining that mutual eye contact is established between the first head mounted device and the second head mounted device comprises the first head mounted device focusing on the eyes of the second user of the second head mounted device and the second head mounted device focusing on the eyes of the first user of the first head mounted device.

9. A computer program product for eye contact-based information transfer, the computer program product comprising a computer readable storage medium having program instructions embodied therewith, the program instructions executable by a processor to cause the processor to perform a method comprising:

establishing communication by a computer device between a first head mounted device worn by a first user and a second head mounted device worn by a second user wherein the first head mounted device worn by the first user and the second head mounted device worn by the second user are in first and second locations, the first head mounted device being at the first location with a first video display, the second head mounted device being at the second location with a second video display;

determining, by a computer device and based on gaze tracking of the first head mounted device and the second head mounted device, that mutual eye contact is established between the first head mounted device and the second head mounted device, wherein determining that mutual eye contact is established comprises determining through gaze tracking eye contact between the first head mounted device at the first location and an image of the second user in the first video display and determining through gaze tracking eye contact between the second head mounted device at the second location and an image of the first user in the second video display such that mutual eye contact between the first head mounted device and the second head mounted device is only through the images in the first and second video displays; and

responsive to an input to the first head mounted device made while the established mutual eye contact exists, transferring, by the computer device, a file from the first head mounted device to the second head mounted device.

10. The computer program product of claim 9 wherein transferring the file only while mutual eye contact between the first head mounted device and the second head mounted device is maintained.

11. The computer program product of claim 9 wherein transferring the file only after mutual eye contact between the first head mounted device and the second head mounted device is established and avoiding maintaining eye contact after transferring the file is initiated.

12. The computer program product of claim 9 further comprising preconfiguring the first head mounted device and the second head mounted device so that the first head mounted device automatically recognizes the second head mounted device for establishing communication between the first head mounted device and the second head mounted device and the second head mounted device automatically

recognizes the first head mounted device for establishing communication between the first head mounted device and the second head mounted device.

13. The computer program product of claim **12** wherein the first head mounted device recognizes the second head mounted device and the second head mounted recognizes the first head mounted device by Bluetooth.

14. The computer program product of claim **12** wherein the first head mounted device recognizes the second head mounted device and the second head mounted recognizes the first head mounted device by near field communication.

15. The computer program product of claim **12** wherein the first head mounted device recognizes the second head mounted device and the second head mounted recognizes the first head mounted device by WiFi.

16. The computer program product of claim **9** wherein determining that mutual eye contact is established between the first head mounted device and the second head mounted device comprises the first head mounted device focusing on the eyes of the second user of the second head mounted device and the second head mounted device focusing on the eyes of the first user of the first head mounted device.

17. A system for eye contact-based information transfer comprising:

a head mounted device having a video display and a computer device;

the computer device having a computer readable storage medium having stored thereon:

first program instructions executable by the computer device in the head mounted device to cause the computer device to establish communication between the head mounted device worn by a first user and a second head mounted device worn by a second user wherein the head mounted device worn by the first user and the second head mounted device worn by the second user are in first and second locations, the head mounted device being at the first location with the video display,

the second head mounted device being at the second location with a second video display;

second program instructions executable by the computer device to determine, based on gaze tracking of the head mounted device and the second head mounted device, that mutual eye contact is established between the head mounted device and the second head mounted device, wherein determine that mutual eye contact is established comprises determine through gaze tracking eye contact between the head mounted device at the first location and an image of the second user in the video display such that mutual eye contact between the first head mounted device and the second head mounted device is only through the image in the video display; and

responsive to an input to the first head mounted device made while the established mutual eye contact exists, third program instructions executable by the computer device to transfer a file from the head mounted device to the second head mounted device.

18. The system of claim **17** wherein transfer the file from the head mounted device to the second head mounted device only while mutual eye contact between the head mounted device and the second head mounted device is maintained.

19. The system of claim **17** wherein transfer the file from the head mounted device to the second head mounted device only after mutual eye contact between the head mounted device and the second head mounted device is established and avoiding maintaining eye contact after transferring the file is initiated.

20. The system of claim **17** further comprising fourth program instructions to preconfigure the head mounted device so that the head mounted device automatically recognizes the second head mounted device to establish communication between the head mounted device and the second head mounted device.

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